Neighborhood Planning for Community Revitalization

West Side Community Environmental Inventory

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West Side Community Environmental Inventory

Prepared for NO SHAMS!
by
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This report [NPCR 1063] is also available at the following internet address: http://freenet.msp.mn.us/org/npcr

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I. Acknowledgments

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II. Executive Summary

General information about community

The West Side neighborhood is located in southeast St. Paul. It is surrounded by the Mississippi on the North, West, and East and by West St. Paul, South St. Paul, and Mendota Heights on the South. The area of the neighborhood is approximately 3.42 miles square, 2,190 acres.

The average daily temperature in St. Paul annually is 46.7° F. The total average precipitation is 30.75 inches with an average of 53 inches of snow. The prevailing wind is from the northwest for the majority of the year with an average annual speed of 10.5 mph.

Because of the differences in elevation caused by the bluffs which surround much of the residential section, temperature inversions may persist into morning hours in some parts of the neighborhood, trapping pollution close to the ground for a longer part of the day.

The West Side was home to 15,207 people in 1989. The community is diverse and is home to one of St. Paul's largest Hispanic communities; 21.3% of the population reports being of Hispanic origin. Sensitive populations (under the age of 5 and over the age of 65) comprise 24.5% of the population. The median income was $24,543 in 1989; 20.1% live below the poverty line (2,971 people).

Resources

Study of maps from 1884 shows that wetlands covered the area now occupied by the St. Paul Downtown Airport and the Mississippi was wider making Harriet Island a true island; the Minnesota Natural Heritage Program Original Vegetation Map shows that the original natural communities were Floodplain Forest and Dry Oak Savanna.

There are 10 parks and recreation centers open to the public that serve as gathering places for the West Side and the St. Paul community at large.

There are 188 animal species found in Ramsey County, it was not possible to report which animals are only found on the West Side, and 44 tree species were identified. There are presently 2 natural communities, Oak Forest and Maple-Basswood Forest, both of which are located in Cherokee Heights Park. There are 15 known rare features within a 1-mile radius of the West Side Community, 5 are found in Lilydale-Harriet Island Regional Park. Five of the 15 are listed as threatened in the state of Minnesota, 1 is listed as threatened and 1 as endangered federally.

There are 2 protected waterbodies on the West Side, the Airport Marsh, which has been decreasing in size due to construction and wetland mitigation, and the Mississippi River, Pool 2 (above Lock and Dam 2, Hastings). The Mississippi River is monitored for ambient water quality at the Metropolitan Waste Water Treatment Plant located on the east bank of the river directly across from the West Side near the Ramsey County line. Results of monitoring for the 1992-1993 Water Years indicated that the segment of the river was nonsupporting of life and swimming overall. The causes were attributed to unionized ammonia as nitrogen, fecal coliform bacteria, nutrients, biochemical oxygen demand, suspended solids, and non-point source pollution (i.e., runoff). There is also a small portion of Pickerel Lake located in the far southwest corner. Flood prone areas include all areas between the Mississippi River and the bluffs that surround the residential area. The industrial area is less prone to flood as it is protected by a levee, but the airport lies in the River Corridor Floodway District and River Corridor Flood Fringe District.

Infrastructure

The infrastructure of the West Side includes rails, an airport, automobile traffic, barges, stormwater drainage, community facilities, and registered underground and aboveground storage tanks.

Union Pacific Railroad owns the three tracks in the area. The freight trains that run are all through traffic and are also owned and operated by Union Pacific. Traffic is variable from

day to day. Coal trains are most regular with 6 coming in and 6 or 7 going out a day.

The Downtown St. Paul Airport, Metropolitan Airports Commission (MAC) Holman field, covers 540 acres of the eastern portion of the community and is classified as an intermediate use airport. The Metropolitan Airports Commission (MAC) reported 139,055 aircraft operations at Holman Field in 1996. There is a total of 263 aircraft based at the field, 60 of which are military and the remainder are general aviation craft. The airport currently has plans to expand, doing so will fill 34 acres of wetlands in exchange for cleanup of the Pickerel Lake area.

There is also a proposal to add an Instrument Landing System for Runway 14 to aid aircraft landing in low visibility conditions. That proposal is still under consideration. With the landing system, annual operations are expected to increase 21.2 percent by 1998 and 45.7 percent by 2006, as reported in the Environmental Assessment prepared for the airport regarding the system. Without the landing system, operations are expected to increase 19.5 percent by 1998 and 43.96 percent by 2006.

Traffic counts were reported for 17 streets at 52 different points by St. Paul Public Works. Twenty-eight of those points have average daily traffic of over 5,000 vehicles, 12 points are over 10,000. The Lafayette Bridge supports the most traffic with an average of 75,275 vehicles daily as measured in November of 1993.

There are 15 stormwater drainage outfalls into the Mississippi that carry runoff from the community to the river. The St. Paul Sewer Utility is in the process of obtaining a National Pollution Discharge Elimination System Permit from the Minnesota Pollution Control Agency which will be a good way to monitor runoff into the Mississippi River in the future.

There are three barge terminals located on the West Side. The amount of commodities carried through all St. Paul River Ports was 5,780,019 tons in 1996. Water vessel traffic counts for 1996 through Lock and Dam 1 located at the Ford Dam in Highland Park and Lock and Dam 2 located in Hastings were obtained to give an estimate of water vessel traffic around the West Side. Lock and Dam 1 reported 1,207 tow vehicles, 4,656 recreational vessels, and 60 "other" vessels which could be government or passenger ships. Lock and Dam 2 reported 1,257 tow vessels, 11,476 recreational vessels, and 65 "other" vessels. Tow traffic is indicative of barge traffic as barges have no propulsion system and must be towed.

There are 7 schools, 3 youth organization facilities, 4 childcare facilities, 3 senior service centers, and 15 churches located on the West Side. There are 77 facilities with registered underground and above ground storage tanks which together operate a total of 234 tanks, 25 of which have been identified as leaking at some point in time. Six of those leak sites have not been resolved by the Minnesota Pollution Control Agency at this time.

Environmental Concerns

The inventory provides a general overview of environmental regulation and more specific overviews for each of the categories included:

- Air pollution
- Waste and non-contact cooling water discharge (NPDES)
- Sewer discharge
- Ground and surface water use
- Hazardous waste
- Toxic Release Inventory
- Chemicals stored on site
- Contaminated, solid waste and Superfund sites
- Noise pollution
- Mosquito control

There are 17 facilities which hold air permits and 2 that do not have permits but must submit Emissions Inventory reports annually. General Registration Permits with special options are held by 15 of the facilities which require adherence to federal and state air quality thresholds. General Registration Permits are issued to facilities that only need permits because

they are subject to federal New Source Performance Standards or facilities whose potential emissions exceed a permit threshold but whose actual emissions fall below federal thresholds due to operating limits, fuel use, control equipment, or other measures. The other 2 permit holders have more elaborate permit agreements which have more specific requirements, some vary across pollution points. Nine violations were noted across all reportees. One facility uses pollution control equipment.

There are 3 facilities that hold National Pollution Discharge Elimination System (NPDES) permits to discharge waste and non-contact cooling water directly into the Mississippi River. Two facilities hold General Permits for non-contact cooling water which require facilities to adhere to a set of general requirements. The remaining facility adds chemicals to their wastewater, algaecides and biocides, to keep their cooling tower clean and is restricted as to the amount of chemicals they may add to the water. Two enforcement actions were noted for violations.

Eight facilities hold permits to discharge into the municipal sewer system. Five of the facilities must adhere to local pretreatment requirements before releasing wastewater into the sewer system. The 3 remaining facilities have special pretreatment requirements designed by the Environmental Protection Agency based on the type of manufacturing done and local pretreatment requirements. Ten violations with enforcement action were found for all facilities.

There are 2 users of ground water and no users of surface water on the West Side as reported by the Department of Natural Resources. The water is used for agricultural processing (food and livestock) and mine dewatering.

There are 113 hazardous waste generators in the West Side community, 35 of which are described in a full table. Most generators are classified as Very Small Quantity Generators. Facilities are inspected annually in most cases, so many violations are noted.

There is one facility required to report toxic chemicals in the Toxic Release Inventory (TRI) and one which filed a 1995 Certification Form for their toxic chemicals. The TRI facility managed 4 chemicals for a total of 309,825 pounds of chemicals in 1995.

There are 9 facilities who reported a total of 35 chemicals stored on site. Information about amount of chemicals, temperature, pressure, and container storage conditions are given.

There are 25 contaminated sites on the West Side, one of which is on the state's Superfund List (PLP). The majority of the sites are listed as part of the Voluntary Investigation and Cleanup Program. The other categories include: No Further Remedial Action Planned, Delisted from the Permanent List of Priorities, List of Permitted Solid Waste Facilities, and the Metropolitan Area Waste Disposal Site Inventory. Many sites fall into more than one category.

The Citizen's Service Office reported 10 complaints about noise on the West Side in 1996 and 1997, only 2 were regarding industrial noise. It is possible that there is much more noise disturbance than is reported.

MAC Holman field is a significant contributor to noise pollution, but reconciling the actual and expected amount of noise in the community resulting from the airport is a problem. The airport's noise contour lines from 1995 are shown on Map 5, which seems to show that noise should not be a problem in the residential area; however, as noted by one of the complaints to the Citizen's Service Office, airport noise does reach the residential neighborhood. Moreover, with continuing expansion plans, there is even more potential for noise pollution problems.

The Metropolitan Mosquito Control District (MMCD) is responsible for controlling mosquito populations for the area. The District reports primarily using larvae control methods with two materials: a dry granular formulation of naturally occurring bacteria called Bacillus thuringiensis israelensis (Bti) and methoprene which is classified by the Environmental Protection Agency as a biological control, not a conventional chemical insecticide. As with all control materials used, larvae must be found at threshold levels before treatment is done. Both materials are placed in mosquito breeding sites in solid form. There are two materials used to control adult mosquitoes,

permethrin and resmethrin. Both are synthetic pyroethroids which are similar in chemical structure to pyrethrum, a natural botanical insecticide that is an extract of a chrysanthemum flower. Both are sprayed when adult mosquito populations meet threshold levels. Both are harmful if swallowed or absorbed through the skin, and inhalation is discouraged.

To assess environmental impacts from the larval mosquito control materials, research is directed by an independent Scientific Peer Review Panel (SPRP). No significant adverse environmental effects have been found in five years of research; however, in the January 1996 Final Report it is stated that many populations closely connected with wetlands were not studied. MMCD asserts that the most "environmentally compatible" control methods are used, staff also keep up with advances in mosquito control technology while evaluating alternative methods of control.

Facilities

The Facilities section compiles the following information about 25 facilities that hold permits, or report Community Right to Know Data:

- General information such as location, phone, purpose ownership, and number of employees.
- All permits and licenses
- Chemicals stored on site
- Toxic Release Inventory
- Storage Tanks
- Noise complaints
- Accidental releases
- Contaminated sites
- Pollution Prevention Plans and Progress Reports along with any other pollution control activities

Recommendations

It is recommended that the citizens of the West Side Community work together to form stronger relationships with both business and government. Developing programs such as a Good Neighbor Project with facilities to agree upon pollution reduction goals is urged.

Creating a neighborhood watchdog group to continue tracking permits and accidental releases is advisable to ensure that this inventory is continually updated and used to its fullest potential.

Developing neighborhood coalitions to deal with noise pollution is suggested. By forming a group of neighbors who are affected by the noise of the industrial area and airport, one call can be made to the Citizen's Service Office and the facility on behalf of the group.

Becoming active in environmental decisions made by government is key to becoming an involved citizen. Working for tougher laws, enforcement, and prevention of pollution is the responsibility of every citizen in developing a stronger relationship with government.

Using public forums to relay information about accidental releases, violations of permits, and mosquito control activities is also advised to keep the community informed and to prompt action when necessary.

It is also recommended that the community continue to study the existence and extent of environmental discrimination that has affected the community in the past, present, and how to deal with such issues in the future.

Individual responsibility is the key to making these recommendations work and living an environmentally sound lifestyle. Each citizen is responsible for recycling, reducing the amount of runoff created by the community, and pitching in to help preserve and protect natural resources.

III. Overview

General information about community

The West Side neighborhood is located in southeast St. Paul. It is surrounded by the Mississippi on the North, West, and East and by West St. Paul, South St. Paul, and Mendota Heights on the South. The community is diverse and is home to one of St. Paul's largest Hispanic communities. Sensitive populations (under the age of 5 and over the age of 65) comprise 24.5% of the population. Information on climatology and the problems associated with temperature inversions are included in this inventory.

Resources

Study of maps from 1884 shows that wetlands covered the area now occupied by the airport and the Mississippi was wider, making Harriet Island a true island; the Minnesota Natural Heritage Program Original Vegetation Map shows that the original natural communities were Floodplain Forest and Dry Oak Savanna.

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There are 2 protected waterbodies on the West Side, the Airport Marsh which has been decreasing in size due to construction and wetland mitigation and the Mississippi River, Pool 2. The Mississippi River is monitored for ambient water quality at the Metropolitan Waste Water Treatment Plant located on the east bank of the river directly across from the West Side near the Ramsey County line. There is also a small portion of Pickerel Lake located in the far southwest corner. The results of monitoring are found in Table 2. Flood prone areas include all areas between the Mississippi River and the bluffs.

Infrastructure

Information about the infrastructure of the West Side includes trains, an airport, automobile traffic, barges, stormwater drainage, community facilities, and registered underground and aboveground storage tanks. Union Pacific Railroad owns the three tracks in the area. The freight trains that run are also owned and operated by Union Pacific. The Downtown St. Paul Airport, Metropolitan Airports Commission Holman field, covers 540 acres of the eastern portion of the community and is classified as an intermediate use airport. Traffic counts are given for 17 streets at 52 different points. There are 15 stormwater drainage outfalls into the Mississippi that carry runoff from the community to the river. There are three barge terminals located on the West Side. Tons of commodities carried through the St. Paul River Ports and water vessel traffic counts are reported. There are 7 schools, 3 youth organization facilities, 4 childcare facilities, 3 senior service centers, and 15 churches. There are 77 facilities with registered underground and aboveground storage tanks which together operate a total of 234 tanks, 25 of which have been identified as leaking at some point in time, 6 of those have not been resolved by the Minnesota Pollution Control Agency.

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There are 17 facilities which hold air permits and 2 that do not have permits but must submit emissions inventory reports annually. There are 3 facilities that hold NPDES permits which discharge waste and non-contact cooling water directly into the Mississippi River. Eight facilities hold permits to discharge into the municipal sewer system. There are 2 users of ground water. There are 113 hazardous waste generators in the West Side community, 35 of which are described in a full table. There is one facility required to report toxic chemicals in the Toxic Release Inventory and one which filed a 1995 Certification Form for their toxic chemicals. There are 9 facilities required to reported storing chemicals on site. There are 25 contaminated sites on the West Side, one of which is on the state's Superfund List (PLP).

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- Storage Tanks
- Noise complaints
- Accidental releases
- Contaminated sites
- Pollution Prevention Plans and Progress Reports along with any other pollution control activities

IV. West Side Community Environmental Inventory: General Information

Location/size

The West Side community is located in southeast St. Paul, Ramsey County (Township 28N, Range 22/23W), Minnesota. It is bounded by the Mississippi River on the North, East, and West as the river bends around the West Side bluffs. It is bounded on the South by Annapolis Street which separates it from West St. Paul, South St. Paul, and Mendota Heights. The area of the community is approximately 3.42 miles square, 2,190 acres.

Climatology

The average daily temperature in St. Paul annually is 46.7° F (average maximum: 56.5, minimum: 36.7.) Broken down across seasons, the mean winter temperature is 18.5° F (max.: 27.0, min.: 10.0), the spring mean is 47.1° F (max.: 57.9, min.: 36.2), the summer mean is 71.3° F (max.: 82.1, min.: 60.3), and the fall mean is 49.7° F (max.: 59.0, min.: 40.4).

The annual average total precipitation in St. Paul is 30.75 inches. The winter average is 2.86 inches, spring average is 8.13 inches, the summer has an average of 12.44 inches, and the fall averages 7.32 inches. St. Paul receives an average of 53 inches of snow annually.

The average wind speed in Minneapolis/St. Paul is 10.5 miles per hour (mph); the average monthly speed ranges from 9.3 mph (August) to 12.2 mph (April.) The prevailing wind direction from November to April is northwest; in May, June, August, and October the wind is from the southeast, and in July and September from the south.

One result of the climatology and topography of the West Side could possibly be the formation of temperature inversions. An inversion occurs when the surface air is cooler than a layer of air above it. Since warm air rises, the cooler air on the bottom is not able to rise and mix. A ceiling is created. The atmosphere becomes particularly stable, hence there is less wind to circulate and dissipate pollutants.

The type of inversion that is important for the West Side is a radiation inversion, which is a normal nighttime occurrence. It happens on clear nights when the ground radiates heat back into space and cools the surface layer of air. Normally, the inversion is broken up by the morning heat of the sun as warm air currents are created that move upward. It is in the morning that the topography of the West Side comes into play. The bluffs that overlook the neighborhood create a valley effect for parts of the area. The sun is not able to heat up the surface layer of air enough to break up the stable layer of air created by the inversion until it is directly overhead. This means that the air is stable for longer periods of the day, trapping pollutants close to the ground.

FIGURE 1: TEMPERATURE INVERSION

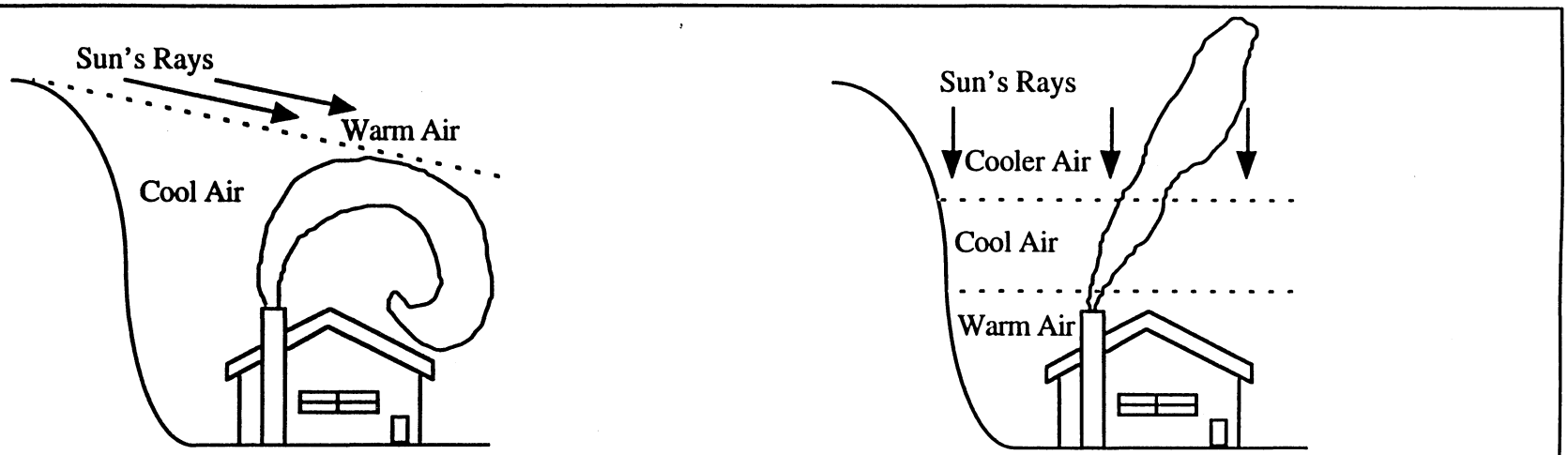

Figure 1: Early in the day, the suns rays do not reach the ground level. The air remains cold and cannot rise to the top, reducing air movement (left). As the sun's rays move overhead, the bottom layer is able to be heated and that air can rise to the top, bringing pollutants away from ground level (right) (adapted from Air Pollution Primer, 14).

Demographics

The West Side is a richly diverse community in terms of cultural, ethnic, and economic diversity. Of the 15,207 people in the population, 74.8% are white, 7.8% are Asian or Pacific Islander, 3.5% are black, 2.6% are American Indian or Eskimo, and 11.2% reported race as "Other," which may be partially due to multiracial identities. Persons of Hispanic origin comprise 21.3% of the population. Of those who reported being of Hispanic origin, 41.3% described their race as white, 3.7% described their race as black, 1.9% described their race as American Indian, 1% described their race as Asian or Pacific Islander, and 52% reported their race as "Other." Of the 5,529 family households, 13.9% are Spanish-speaking, 4.4% speak an Asian or Pacific Island language, and 3.9% speak another language at home; 3.9% of households reported being linguistically isolated.

Of housing units on the West Side, 57% are owner-occupied and 43% renter-occupied. The average value of owner-occupied homes is $62,856; the average monthly rent is $361. The majority of housing units, 55%, were built in 1939 or earlier.

The median household income is $24,543; 20.1% live below the poverty line, which is 2,971 people. If poverty status is analyzed by race and origin, 11.4% of those who reported race as white live below the poverty line, as do 50.2% of black, 40.6% of American Indian, 66.2% of Asian or Pacific Islander, and 29.5% of those who reported "Other;" 22.5% of those who reported Hispanic origin live below the poverty line. If analyzed by age, 31.0% of 0-17 year-olds, 14.9% of 18-64 year-olds, and 16.9% of 65+ year-olds live below the poverty line. Of persons 16 years and older, 8.1% are unemployed. As for

educational attainment of persons 25 years and older, 74.5% have graduated high school (or equivalency) or had more education, 12.8% have completed a bachelors degree or higher.

Sensitive populations are those people under the age of 5 and over the age of 65 who may be most sensitive to environmental toxins. In the West Side neighborhood, 10.2% of the population is under the age of 5 and 14.0% of the population is over the age of 65. There are others who may be especially sensitive as well due to health, but there is no way of knowing who or how many people are at risk.

Considering the large amount of industry and the diverse racial makeup of the community, especially the large Hispanic community, it seems appropriate to include a brief overview of environmental discrimination in this inventory. This discussion is not meant to imply that environmental discrimination exists in the West Side, but knowing the background and implications is important for community members to consider when dealing with their environmental problems. Appendix A gives a comparison of socioeconomic and racial makeup between the West Side and all of St. Paul. There has been no research, however, comparing environmental concerns for the West Side and all of St. Paul.

Environmental discrimination is most often referred to as racism because race and poverty still are strongly correlated. Most generally, environmental discrimination occurs in environmental policy making which targets low income communities for polluting industry, toxic waste sites, and other harmful practices. As stated in Environmental Racism: Voices from the Grassroots, the most polluted areas of the nation are those with "crumbling infrastructure, ongoing economic disinvestment, deteriorating housing, inadequate schools, chronic unemployment, a high poverty rate, and an overloaded health-care system" (Bullard, 17). These communities are overwhelmingly home to people of color. Nationally, researchers Wernette and Nieves found:

> In 1990, 437 of the 3,109 counties and independent cities failed to meet at least one of the EPA ambient air quality standards...57 percent of whites, 65 percent of African Americans, and 80 percent of Hispanics live in the 437 counties with substandard air quality. Out of the whole population, a total of 33 percent of whites, 50 percent of African Americans, and 60 percent of Hispanics live in the 136 counties in which two or more air pollutants exceed standards (Bullard, 17).

There are a few ways, intended and unintended, that this happens. First, companies and government choose sites for new industry based on the amount of resistance they anticipate from the community. This is illustrated by a report the Cerrell Associates provided the California Waste Management Board entitled: "Political Difficulties Facing Waste-to-Energy Conversion Plant Siting" (1982):

> All socioeconomic groupings tend to resent the nearby siting of major facilities, but middle and upper socioeconomic strata possess better resources to effectuate their opposition. Middle and higher socioeconomic strata neighborhoods should not fall within the one-mile and five-mile radius of the proposed site (p.43) (Bullard, 18).

Secondly, zoning ordinances are used to place industry in certain areas. Often times, environmental discrimination results from past discriminatory zoning laws. Third, lack of regulatory enforcement by the government leads to deterioration of these areas due to neglect. Finally, people of color do not have the same opportunities as white people to leave polluted neighborhoods due to both socioeconomic and racial discrimination (Bullard, 21).

A final point that is important to understand is that environmental discrimination is not only limited to socioeconomic status, but is most relevant when considering race. When socioeconomic status is held constant, people of color are exposed to toxic levels of hazardous substances at a higher rate. For example, the federal Agency of Toxic Substances and Disease Registry reported that for families earning less than $6000 annually, 68 percent of African American children and 36 percent of white children had lead poisoning (Bullard, 21). It is for this reason that environmental discrimination is most often called environmental racism.

V. Natural Resources: Past and Present

Past Natural Resources

Map 2, from 1884, shows the changes in the neighborhood in regard to waterbodies and development. The western part of the neighborhood, now home to the airport, was all marsh. The Mississippi was wider, and Harriet Island was literally an island. The original vegetation of the area was largely a hardwood River Bottom Forest, today known as Floodplain Forest, consisting of elm, ash, cottonwood, boxelder, silver maple, willow, aspen, and hackberry trees. The remaining part of the neighborhood was brushland originally called Oak Openings and Barrens, also known as Dry Oak Savanna today, consisting of scattered trees and groves of oaks of scrubby form with some brush and thickets. The West Side section of the Minnesota Natural Heritage map, "The Original Vegetation of Anoka and Ramsey Counties," is shown in Map 3. This information was interpreted by Frances J. Marschner from Public Land Survey Records with slight modifications from the original 1930 edition.

Present Natural Resources

Public Parks and Recreation Areas

The West Side neighborhood contains 10 parks and recreation areas that are open to the public. They are not only valuable to the residents of the community, but are gathering places for events such as Cinco de Mayo, Greening the Great River Park, the Smith Avenue Festival, and many more which are open to the general public throughout the year as they are on or near the river. These areas include: Alice Park, Cherokee Heights Regional Park, Terrace Park, Bluff Park, Harriet Island Park and Pavilion, Prospect Terrace Park, Baker Playground and Community Center, El Rio Vista Playground and Parque Castillo, Belvidere Playground, and the Riverview Public Library.

Animals, Trees and Natural Features

Animal records were obtained for birds, mammals, amphibians, and reptiles observed in Ramsey County. Because this list is for all of Ramsey County, some of these species may not occur specifically on the West Side. Most of the wildlife listed is non-threatened, however, and so their numbers are healthy and no distinct boundaries may exist for their range of occurrence.

There are 166 species of birds on the list of which 121 are known to occur in Ramsey County. This includes only species documented during the breeding season and not those that are only winter residents or are observed only during migration. These include: Loons, Grebes, Cormorants, Bitterns, Herons, Egrets, Geese, Ducks, Hawks, Falcons, Pheasants, Grouse, Rails, Cranes, Shorebirds, Gulls, Terns, Doves, Cockoos, Owls, Nighthawks, Kingfishers, Swifts, Hummingbirds, Woodpeckers, Flycatchers, Swallows, Jays, Crows, Chickadees, Nuthatches, Wrens, Kinglets, Bluebirds, Thrushes, Catbird, Thrashers, Waxwings, Starlings, Vireos, Warblers, Tanagers, Cardinals, Buntings, Towhees, Sparrows, Bobolinks, Blackbirds, Meadowlarks, Orioles, Finches, and House Sparrows.

There are 60 species of mammals listed, of which 44 occur in Ramsey County. These include: Marsupials, Shrews, Moles, Bats, Rabbits, Squirrels, Gophers, Beavers, Mice, Voles, Muskrats, Carnivores, and Ungulates (deer).

There are 39 species of amphibians and reptiles, 23 of which occur in Ramsey County. These include: Salamanders, Toads, Frogs, Turtles, Skinks, and Snakes. For a full listing of all 188 species that occur in Ramsey County, see Appendix B.

Information about tree species on the West Side's streets was obtained from the Forestry Division of St. Paul Parks and Recreation. They keep records of the number and types of trees located on each street. Forty-four species were identified,

however, this is not necessarily an exhaustive list. The majority of the species were identified by using a color coded map with the predominant species identified and looking through street tree records for streets on the map that were mixed or ambiguous. Most of the street tree records were updated in 1991 as well, so they may not account for trees that have been planted or removed from the area since then.

These 44 species have been identified: Green Ash -- Summit, Marshalls, and Bergeson; Basswood; Bur Oak; Columnar Norway Maple; Catalpa; Crimson King Norway Maple; Cleveland Norway Maple; Emerald Lustre Norway Maple; Emerald Queen Norway Maple; Ginko; Greenspire Linden; Green Mountain Sugar Maple; Globe Norway Maple; Hackberry; Jade Glen Norway Maple; Japanese Tree Lilac; Northwood Red Maple; Eastern Pin Oak; River Birch; Redmond Linden; Boxelder; Schwedler Norway Maple; Ironwood; Canadian Red Cherry; Imperial Locust; Skyline Locust; Butternut; Black Walnut; Fairmont Ginko; Newport Ash; American Elm; Majesty Sugar Maple; Thornless Honey Locust; Silver Maple; Birch; Manitoba White Ash; Spirea Bushes; Cottonwood; Superform Norway Maple; Sentry Ginkgo; and Spring Snow Flowering Crab.

The Minnesota Natural Heritage Program has identified 2 natural communities on the West Side, both located in Cherokee Heights Regional Park. They are: Oak Forest (dry subtype and subtype not determined, either dry or mesic) and Maple-Basswood Forest (mesic forests on glacial till with the canopy dominated by sugar maple, basswood, red oak, and green ash).

Natural communities are important to note because they are functional units of the natural landscape. They are classified and described by considering vegetation, hydrology, landform, soils, and natural disturbance regimes. It is important to note that areas not considered natural communities have been seriously altered or destroyed by human activities such as farming, logging, draining, and development. Map 4 shows the size and location of natural communities, but note the large amount of land that has had its natural communities destroyed.

The West Side is characterized by the natural bluffs that surround the residential area. Map 1, the United States Geological Survey Topological map, shows the location of the bluff line. The elevation rises from 703 feet above sea level to 814 and 911 feet above sea level just west of the airport. Elevations remain above 800 feet above sea level as the bluffs bend to the west, with an elevation of 982 feet above sea level at the county line on the western side of the community, just east of Pickerel Lake.

Endangered and Protected Species and Rare Features

There are 15 known rare features within a 1-mile radius of the West Side Community. Half are sited as outside the West Side community, but the precision of the locational information varies for each species so it is possible that these species could also show up on the West Side. Outside of the West Side neighborhood, 7 are located within Battle Creak Regional Park, and one in Kaposia Park. Two are located on private property, and 5 are reasonably sure to be located within the West Side boundaries in Lilydale-Harriet Island Regional Park.

The locations of some of these rare features must be treated as sensitive information because widespread knowledge of their locations could result in harm to them. For this reason, locations more precise than the managed areas that they occur in is not given here.

More detailed information about each rare feature is located in the table below. Federal Status refers to the status of the species under the federal Endangered Species law. Endangered Species are designated by "END," threatened by "THR." MN Status is the legal status of plant and animal species under the state Endangered Species law. Endangered is designated by "END," threatened by "THR," special concern by "SPC," and "NON" refers to species that have no legal status but are rare and may become listed if numbers decline further. State Ranks are assigned to natural community types in the state to reflect their known extent and condition. Rank ranges from 1, indicating the greatest need for conservation, to 5, secure under present conditions. Ranks do not represent a legal

protection status, they are used to set priorities for research, inventory and conservation planning. A blank means that no status or rank has been assigned. A blank in the location column means that the feature probably occurs on private land.

TABLE 1: RARE FEATURES AND ENDANGERED AND PROTECTED SPECIES

Name and Occurrence Number	Federal and MN Status	State Rank	Location	Last Observation	Notes
Kitten Tails (Besseya Bullii) #10	MN: THR		Battle Creek Regional Park	May 1903	Growing on sandy hillsides. Frequent near Fish Hatchery.
Kitten Tails (Besseya Bullii) # 59	MN: THR		Battle Creek Regional Park	July 4, 1990	312 Plants counted, 102 plants found in 5 main groups and additional 210 found elsewhere.
Kitten Tails (Besseya Bullii) #65	MN: THR		Battle Creek Regional Park	May 13, 1992	Growing on more or less flat land in grassy-sedgey opening under red oaks. About 10 plants scattered in a quarter-acre area. Not much potential habitat.
Dry Prairie (Central) Sand-Gravel Subtype #9		S2	Battle Creek Regional Park	July 3, 1990	
Oak Forest (Central) Mesic Subtype #9		S2	Battle Creek Regional Park	July 3, 1990	
Proglacial River Composite (Quaternary) #4			Battle Creek Regional Park	1980	
Bald Eagle (Haliaeetus Leucocephalus) #573	Fed: THR MN: SPC		Battle Creek Regional Park	1995	
Oak Forest (Southeast) Mesic Subtype #204		S2	Kaposia Park	June 5, 1993	Good remnants of forest, ground layer mesic to dry-mesic, few exotics.
Milk Snake (Lampropeltis Triangulum) #20	MN: NON			June 3, 1948	One specimen collected.
Bat Concentration #28			Lilydale-Harriet Island Regional Park	1985	Echo sand mine. Approx. 50 killed in 1981, none found in 1983.
Dry Prairie (Central) Sand-Gravel Subtype #7		S2	Lilydale-Harriet Island Regional Park	July 22, 1990	Diverse population, very steep gravel prairie, interrupted by trees, shrubs, foot trail.
Northern Myotis (Myotis Septentrionalis) #7	MN: SPC		Lilydale-Harriet Island Regional Park	1985	Approx. 50 bats killed in 1981, none found in 1983.
Ordovician (Fossil Invertebrate) #7			Lilydale-Harriet Island Regional Park	1978	3 large claypits in Decorah shale, numerous fossils

Blanding's Turtle (Emydoidea Blandingii) #509	MN: THR		Lilydale-Harriet Island Regional Park	June 20, 1990	One turtle seen in puddle near road, 9 inches in length, released in Pickeral Lake.
Peregrine Falcon (Falco Peregrinus) #44	Fed: END MN: THR			1992	

Waterbodies

The information about protected waters comes from the Department of Natural Resources' Division of Waters. The Division's most recent map of Protected Waters and Wetlands is from 1983. It shows 2 protected water bodies, the Mississippi River, Pool 2, and the Airport Marsh. There is also a small portion of Pickerel Lake, located in the far south west corner which is also listed as protected. The locations and high water marks are shown in Map 4. Much of the airport marsh has been or will be mitigated due to construction of a new runway. Normally, mitigation requires the airport to create 2 acres of wetland for every acre destroyed, but current expansion plans requires cleanup of the Pickeral Lake area.

The Mississippi River is a protected waterbody and is monitored regularly for ambient water quality. The Minnesota Pollution Control Agency issues a "Minnesota Water Quality Report" every two years. It includes tables of monitoring data for every lake, stream, and reach of river in the state. Segment number 401 of the Mississippi River, which is 8.8 miles long, is monitored at the Metropolitan Waste Water Treatment Plant which is located on the east bank of the river directly across from the West Side near the Ramsey County line. Using reports from 1992 and 1994, the table below compares levels of support for river use, causes of pollution, and sources of pollution that were applicable in the 1990-1991 water years and the 1992-1993 water years. Categories that were not causes or sources of pollution each year were not included in the table. Those categories are: dissolved oxygen causes, high/low pH causes, municipal sources, and industrial sources. Some of the categories changed from year to year, hence the not applicable (N/A) indication in some cells. For example, the "Other" causes category was in the 1992 report, which included suspended solids. However, "Suspended Solids" was a category in the 1994 report. This indicates that suspended solids were present both in 1990-1991 and 1992-1993 water years. The other possibilities in the "Other" category in the 1992 report were turbidity and conductivity, both of which were distinct categories in the 1994 report and were not indicated as a cause of pollution. All categories which were indicated to be present violated ambient water quality standards in greater than 10 percent of observations. A description of all categories and requirements for being put on the 304(L) Long or Medium List are listed in Appendix C.

The 1992 and 1994 reports indicated that nonpoint source pollution (i.e., runoff) was a source of pollution in the 1990-1993 water years. This means that the water quality is less than achievable for the ecoregion. This evaluation is based on a comparison of values for total phosphorus, nitrate/nitrite, total suspended solids and biochemical oxygen demand with an estimate of achievable values for these parameters for the waters of the respective ecoregion.

Italics indicate the only detectable difference between the 1990-1991 and 1992-1993 water years reports.

TABLE 2: MINNESOTA POLLUTION CONTROL AGENCY WATER QUALITY REPORTS FOR THE 1990-1991 AND 1992-1993 WATER YEARS AT MISSISSIPPI RIVER SEGMENT 401

	Uses						Causes	
Year	Overall	Aquatic Life	Swimming	Fish	Agricultural/ Wildlife	304(L) List Status	Ammonia/ Nitrogen	Fecal Coliform
1992-1993	NS	NS	NS	N/A	FS	N/A	Y	Y
1990-1991	NS	NS	NS	PS	N/A	L,M	Y	Y

	Causes						Sources
Year Continued	*Metals*	Priority Toxins	Nutrients	Biochemical Oxygen demand	Suspended Solids	Other	Nonpoint Indicator
1992-1993	*N*	N/A	Y	Y	Y	N/A	Y
1990-1991	*Y*	Y	Y	Y	N/A	Y	Y

Use Codes
NS: Not Supporting
PS: Partially Supporting
FS: Fully Supporting

304(L) Codes
L: Long List
M: Medium List

Flood Prone Areas

Information about flood prone areas was obtained from St. Paul Planning, Zoning section. A Flood Insurance Rate Map, last revised August 3, 1989, shows that the area between the Mississippi River and the bluffs is prone to flooding. All of the Airport is in a "Special Flood Hazard Area Inundated by 100-year Flood." A levee runs north-south along the western edge of the airport and around the Mississippi River which protects the industrial zone from 100-year flood. Map 1, the United States Geological Service Map, gives a good indication of the location of these areas although it is not explicitly mapped.

VI. Infrastructure

Railroads

All rails in West Side are owned by the Union Pacific Railroad, formerly owned by Chicago and Northwestern Railway Company and the Chicago Rock Island Pacific. Tracks run west along Alabama Street, just east of Highway 52 and south of the Mississippi River, then south following the western border of the airport, exiting the area east of Highway 56. Another track goes southeast, crossing West Plato Blvd. at Starkey St., Robert St. near Wood St., Highway 52 near Eaton St. and exits the area between Highway 56 and the aforementioned track. A third track runs southwest between the river on the north and Water St. on the south; it crosses Water St. at Joy Ave.

Trains only carry freight materials such as coal, wheat, grain, chemicals, and fertilizer. The switching yard they use is in South St. Paul; they only run through traffic on the West Side.

There is variable, irregular traffic throughout day and night, depending on crews, loading time, materials to be shipped, etc. Coal trains are fairly regular, there are about 6 coming in and 6 or 7 going out (south) a day. They do not lease their tracks, although occasionally they make an exception for another company but it is situationally based, not a regular arrangement.

Some parts of the tracks have been underwater for a time Spring 1997 because of flooding. This is one of the hazards of being so close to river, both for pollution being washed into river and for creating problems and delays for the company.

Airport

The St. Paul Downtown Airport, Metropolitan Airports Commission (MAC) Holman Field, covers 540 acres of the neighborhood's eastern half. It is located on the floodplain of the Mississippi River in areas classified as River Corridor Floodway District and River Corridor Flood Fringe District. Holman field reported no contamination resulting from flooding Spring 1997.

The Minneapolis-St. Paul Metropolitan Airports Commission reported 139,055 aircraft operations at the Holman Field in 1996. An aircraft operation is defined as one landing or one take off. The months with the most aircraft operations during the year are July and August, which supported 15,660 and 14,045 operations in 1996, respectively. The least busy months are December and January with 6,489 and 7,640 respectively.

There is a total of 263 aircraft based at Holman field currently; 60 of these are military and 203 are general aviation aircraft. This is up slightly from 1992-1996 when 198 general aviation aircraft were based there making the total 258. Holman field is considered an intermediate use airport because it handles all types of aircraft - personal, military, and commercial - and has less traffic and smaller planes than larger airports like Minneapolis-St. Paul International and more and larger planes than airports like Lake Elmo. Most planes are single engine piston general aviation aircraft. They also base multi-engine piston, turboprop, turbojet, and rotor general aviation.

The airport operates with fixed-based operators for maintenance work and other operations. These include such facilities as St. Paul Flight and Regent Aviation found in the Hazardous Waste section of this report. Therefore, when considering the impact of the airport on the environment, it is important to consider these necessary facilities.

MAC has an Environment Department to handle issues such as Spill Protection Programs and wetland mitigation. Holman field uses Spill Protection Programs, as regulated on the state and federal levels, along with Best Management Practices to keep spillage of fuel and other hazardous materials to a minimum. Concerning the wetlands owned by the airport, they are required to create 2 acres for every acre destroyed through construction or expansion. There are no noise containment plans as of present as there is less concern at Holman field than at Minneapolis-St. Paul International. Map 5 shows the 1995 noise contours of the airport as determined according to Federal Aviation Administration procedures.

Pig's Eye Lake and Pig's Eye Scientific and Natural Area are affected by plane routes. They are home to blue herons, great egrets, black-crowned night herons, and double-crested cormorants. The areas are also nesting and winter night roosting area for bald eagles.

The airport has current expansion plans which will fill 34 acres of wetlands in exchange for cleanup of the Pickerel Lake area. Construction of hangers and other facilities is anticipated to begin spring of 1998. Holman field has also proposed the installation of an Instrument Landing System for Runway 14 to aid aircraft landing in low visibility conditions. If the landing system is approved, annual operations are expected to increase 21.2 percent by 1998 and 45.7 percent by 2006, as reported in the Environmental Assessment prepared for the airport regarding the system. Without the landing system, operations are expected to increase 19.5 percent by 1998 and 43.96 percent by 2006.

The Environmental Assessment which has been prepared for MAC concluded that there are "no potentially significant adverse environmental impacts" anticipated if the landing system is added, and possibly some positive impacts as there would be less traffic over Pig's Eye Lake and Pig's Eye Scientific and Natural Area. However, the West Side Citizens' Organization and others have found significant problems with the Environmental Assessment, including the noise analysis, compatible land use, environmental justice, socio-economic impacts, threatened species as the decrease in traffic over the aforementioned Pig's Eye areas will increase traffic over Pig's Eye Island #1, which is a nesting site for bald eagles, and light emissions, which will be the equivalent of 84 pairs of car headlights. A decision on this issue has yet to be made.

Traffic

Emissions from automobiles can include carbon monoxide, hydrocarbons, and nitrogen oxides which contribute to lower atmospheric ozone formation, or smog. Emissions decrease as speed increases until high speeds (55 mph or above) are reached, when emissions increase with speed. Intersections where cars accelerate and decelerate at low speeds have the worst emissions. The Minnesota Pollution Control Agency, Air Quality Division, is only able to measure carbon monoxide levels at the busiest intersections in the metro area due to financial restrictions and because the equipment cannot be moved because the readings would be unreliable. The West Side has no such monitoring points, hence we cannot know if any of these intersections have elevated emissions.

The table below shows the Average Daily Traffic counts at monitored points and when the data was collected. This information is available from St. Paul Public Works.

TABLE 3: AVERAGE DAILY TRAFFIC COUNTS

Street Location of count between major intersecting streets (unless specified)	Average Daily Traffic (number of vehicles)	Month and Year Counted
Annapolis		
Cherokee and Smith	4350	7-93
Smith and Ohio	4600	7-93
Dodd Rd. and Stryker	4750	8-94
Stryker and Robert	5375	7-93
East of Oakdale	1325	8-94
Cherokee		
Smith and Ohio	1350	7-93

Concord		
Robert and George/State	6450	7-95
State and Lafayette	11,050	8-94
East of Lafayette	12,100	8-95
Dodd Road		
Annapolis and Stryker	2650	7-93
Fillmore		
Robert and Lafayette	2300	7-93
Lafayette and Plato	2075	8-95
George		
Smith and Ohio	6800	9-96
Ohio and Stryker	4325	8-94
Stryker and Humboldt	7350	7-93
Humboldt and Robert	8175	9-96
Robert and Concord	5075	10-93
Humboldt		
George and Winifred	3200	8-94
Winifred and Wabasha	4600	10-94
Lafayette		
Bridge	75,275	11-93
West Ramp to Plato	7250	8-95
East Ramp from Plato	6625	8-95
Plato and Concord	60,300	8-95
West Ramp North of Concord	6775	9-95
West Ramp South of Concord	1600	9-95
East Ramp North of Concord	6625	9-95
East Ramp South of Concord	1650	9-95
Oakdale		
Annapolis and State	2725	6-95
Ohio		
near Annapolis (North of Annapolis)	1250	7-93
near George (just South of George)	1175	3-96
George and Winifred	3250	3-94
Cherokee and Plato	3600	7-95
Plato		

Ohio and Wabasha	5775	9-96
Wabasha and Robert	8825	6-95
Robert and Lafayette	16,275	8-96
Lafayette and Chester	5250	7-95
Chester and Fillmore	3225	5-95
Robert		
Annapolis and State	13,925	8-93
George and Wabasha/Concord	10,475	8-94
Wabasha/Concord and Plato	12,075	6-95
Bridge	15,025	11-94
Smith		
Annapolis and George	11,200	6-94
Bridge	15,150	6-95
State		
Robert and Oakdale	1650	7-95
Oakdale and Concord	5075	8-94
Stryker		
Annapolis and Dodd Road	3075	5-95
Dodd Road and George	5450	8-94
George and Winifred	2150	5-95
Wabasha		
Robert and Humboldt	7025	8-94
Humboldt and Plato	10,025	6-95
Bridge	12,800	10-94
Water		
South of Smith	475	10-94
Smith and Plato	1050	5-95

Storm Water Drainage

Information about the storm water drainage system is important because it shows where all of the water, rain or snow, that falls on the West Side ends up, in the Mississippi River. Runoff is a source of non-point source pollution; it carries with it all of the chemicals and debris we dump or spill on the ground and put on our yards, such as oil and pesticides. This is especially important for the West Side because 50 percent of the ground surface is impervious, meaning that water cannot soak in and must run off through the drainage system. Much of the impervious surface is used by industry, such as the St. Paul Downtown Airport, so when thinking about their effects on the environment, this must not be forgotten. As it applies to industry, so to does it apply to homeowners. The affect of one household may be small but collectively the pollution of a

neighborhood has a substantial affect on the watershed. The 1992 and 1994 Minnesota Water Quality reports (discussed above) indicated that nonpoint source pollution was a source of pollution in the 1990-1993 water years.

The Storm Water Drainage information was obtained from the St. Paul Sewer Utility. This listing corresponds to 1995 photos. At this time there is still a lot of work being done on the system, especially near the airport, which is not documented as the Sewer Utility does not organize their material digitally as of yet. A sewer map contains information on the elevation at intersections so one may get a good idea about where the water flows into the Mississippi from a particular area. Some of the runoff from the West Side, especially portions of Annapolis Street, run off into West St. Paul. The Sewer Utility is in the process of obtaining an NPDES permit from the MPCA for storm water discharges into the Mississippi which will be in excellent way to monitor runoff in the future.

The table below lists Outlet name (usually the adjacent street), Storm Number, size, and type (if applicable) of the West Side's Storm Water Drainage Outfalls. In some cases, a new outfall was indicated by Sewer Utility personnel but had not been mapped so information about the size and type of pipe was not available.

TABLE 4: STORM WATER OUTFALLS

Outlet Name	Storm Number	Size	Type
Wyoming	365	30"	Culvert
Page	380	42"	
Robie/Witham	385	54"	
Robie/Kansas	390	42"	
No Name (Airport)	400	12"	
Chester	405	24"	
Eva	407	21"	
Eaton	409	--	
Custer	410	24"	Pump Station
Edward	414	--	
Bidwell	416	--	
Moses	420	5'6"	
Belle	430	2.36" X 40"	
Riverview	440	2- 77" X 121"	Twin Barrel
Chippewa	460	16"	

Barges

Barges, which can carry a maximum of 1500 tons, are used to ship 15 million tons (15 percent of all interstate freight needs) of commodities along the Mississippi River per year. These commodities include coal, petroleum products, chemicals, crude materials, manufactured goods, farm products, equipment and other miscellaneous products. The barge season is typically from mid-March to Thanksgiving. This method of shipment is superior to shipping by rail or truck for a number of reasons, with a few drawbacks. It is advantageous because the loading and unloading systems are fast (loading can take as long as 8 hours, but unloading usually takes around 2 1/2 hours) and efficient, so with raw commodities such as coal or chemicals such as fertilizer there is less spillage and loss. Most importantly, however, shipment by water is very fuel efficient. One gallon of fuel will move one ton of freight 514 miles by water, 202 miles by rail, and only 59 miles by truck. Therefore, air emissions are reduced for every mile a ton of commodity is shipped. An advantage of water shipping is less wear and tear on the state's and communities roads, but there are also maintenance concerns with the water route. The US Army Corps of Engineers must dredge to maintain a 9 foot deep channel on the Mississippi. Dredging is the process of removing sediment that has built up along the river, the bottom in this case, but moving sediment causes all of the pollutants trapped in the sediment to be washed out back into the water. As is the case with all practices that are potentially harmful to our environment, a cost-benefit analysis must be done to determine the best alternatives. The Minnesota Department of Transportation is now researching the environmental dollar cost impact of moving water based freight onto a land mode, which will determine how much more environmentally friendly water shipping is to land shipping.

The stretch of the Mississippi that bends around the West Side is located in Pool 2; it is above Lock and Dam 2 located in Hastings (Lock and Dam 1 is located at the Ford Dam in Highland Park). In 1996, a total of 5,780,019 tons (short tons, 2000 pounds per ton) of freight were shipped through the St. Paul River Ports. This number is up slightly from the 1995 total of 5,558,993 tons. Of the approximately 49 barge terminals on the Mississippi, 3 are located on the West Side as described in Table 5 below, and 10 are located on the opposite bank of the river from the West Side. There is also one facility on the West Side that is a harbor service and a shipyard which does vessel repair work: Upper River Services, at 40 State Street. Because the barging industry follows market conditions, there is not typical or average use figures that would be meaningful.

The Army Corps of Engineers keeps records as to the number of vessels that move through the Mississippi Lock and Dam system. The West Side is located between Lock and Dam 1, located in the Highland Park neighborhood of St. Paul at the Ford Dam, and Lock and Dam 2 located at Hastings. In 1996 at Lock and Dam 1, there were 1,207 tow vessels, 4,656 recreational vessels, and 60 vessels that fall into the "Other" category, which includes passenger or government vessels. At Lock and Dam 2, there were 1,257 tow vessels, 11,476 recreational vessels, and 65 "Other" vessels. Tow traffic is indicative of barge traffic as barges have no propulsion system and must be towed. There is no way of knowing exactly how many of these move through the West Side stretch of river, but these numbers give an indication of the general numbers.

TABLE 5: WEST SIDE BARGE TERMINALS

Name, Address, and River Mile	Commodities Handled	Storage Capacity	Access to Terminal	Equipment Available
Alter Minnesota Wharf/St. Paul River Terminal 751 Barge Channel Rd. 836.0 R	Coal, Salt, Scrap Metal, Steel, Ore, Grain, Fertilizers, Twine	250,000 Tons	T.H. 56 Via Barge Channel Road, one block South of Hwy. 3; Union Pacific Railroad	Crawler Cranes, Belt Conveyor, Loaders, Locomotive, Trucks
Farmland Industries 50 Chester St. 838.7 R	Bulk Fertilizer and Phosphate	12,500 Tons	T.H. 3 Via Plato Blvd. to Alabama St.; Union Pacific Railroad	4 Pipelines
Hawkins Terminal #2 701 Barge Channel Rd. 836.0 R	Liquid Caustic Soda, Liquid Caustic Potash	1,200,000 Gallons	T.H. 56 Via Barge Channel Rd.; Union Pacific Railroad	2 Pipelines

Community Facilities

The community contains 7 schools: 5 public, 1 private and 1 private alternative school. They are: Riverview, K-1 at 271 East Belvidere; Roosevelt, K-3, 160 Isabel St. East; Cherokee Heights, 4-6, 694 Charlton; Humboldt Junior High, 7-8, 640 Humboldt Ave.; Humboldt Senior High, 9-12, 30 Baker St. East; St. Matthew's, K-8, 490 Hall Ave. (private); and Guadalupe Area Project, 7-12, 381 Robie St. East (alternative).

Youth organizations include: West Side Early Childhood Family Education , 271 Belvidere St. East; Girl Scout Council of St. Croix Valley located at 400 Robert St. South; and the West Side Boy's and Girl's Club at 291 East Belvidere.

The West Side has 4 childcare facilities, one in the Guadalupe Area Project building, Hispanic Child Care Advocacy at 179 E. Robie St., St. Matthew's Church at 490 Hall Ave. and St. Matthew's Child Care Center at 15 West Winifred St. There is also some in-home child care.

There are 3 Senior Citizen's Services: Clues-Spanish Speaking Seniors Program at 530 Andrew St., Congregate Dining at 400 Sibley St., and the Wilder Foundation Amherst H-Health Center located at 512 Humboldt.

The West Side is home to 15 churches which serve as gathering places for the residents. These include: New Testament Baptist Church, 607 Orleans St.; Immaculate Heart of Mary Church, 875 Manomin; Our Lady of Guadalupe, 397 Robie E.; St. Matthew's, 490 Hall Ave.; St. Paul Mennonite Fellowship, 576 S. Robert St.; Cherokee Park United Church, 371 Baker St. W.; Holy Trinity Lutheran Church, 125 Steven St. W.; St. Mary Aniochian Orthodox Church, 678 Robert St. S.; Holy Family Maronite, 203 Robie St. E.; Ascension Episcopal Church, 315 Morton St. W.; St. Stephen's, 1575 Charlton St. W.; Emanuel Evangelical Lutheran Church, 580 Humboldt Ave.; Hmong Community United Methodist, 215 George St. W.; Iglesia Ni Cristo Church, 59 E. Congress St.; and Iglesia Metodista Unida La Puerta Abierta, 92 E. Morton Street.

Registered Underground and Aboveground Storage Tanks

There are 77 facilities on the West Side with registered underground and aboveground storage tanks. Together they operate a total of 234 tanks, 25 of which have been identified as leaking at some point. All of the leaking sites have been cleaned up to MPCA requirements, and are deemed "closed" cases, except for 6. The MPCA states that "unclosed" sites are still in

the process of getting cleaned up or that the managing facility has not yet taken action. Three of the sites are in the Voluntary Petroleum Investigation and Cleanup (VPIC) Program, the rest are leaksites only. Table 6 below documents each facility, number of tanks, type of tank, ID number and date of reported leaksites, date leaksites were closed by the MPCA, and indicates if a site is in the VPIC program.

TABLE 6: UNDERGROUND AND ABOVEGROUND STORAGE TANKS, LEAKING AND VPIC PROGRAM SITES INDICATED

Facility, Address	ID#	Number of Tanks	Type	Leak #, Date Reported	Leak Closed	VPIC Program
3M Holman Field Hanger Bldg. 670 690 Bayfield St.	4011	8	Underground	4502 9/10/91	3/30/92	
Alter Minnesota Inc. 801 Barge Channel Rd.	3422	1	Underground	6573 4/1/92	5/18/93	
American Red Cross 100 S. Robert St.	3577	1	Underground			
Apartments-Wilder Foundation 508-510 Humboldt Ave.	8986	1	Underground			
Baldinger Baking Co. 215 Eva St.	14277	3	Underground	3741 1/18/90	12/18/92	
Brown & Bigelow 345 E. Plato Blvd.	3554	6	Underground	3631 12/10/90	8/1/96	
C & H Chemical 222 Starkey St.	50713	8	Aboveground			
Captain Ken's Foods Inc. 344 S. Robert St.	18584	2	Underground	7830 9/8/94	2/21/96	
Carl Bolander & Sons 224 Starkey St.	3498	1	Underground			
Carl Bolander & Sons Co. Construction 251 Starkey St.	3464	3	Underground	7280 4/6/94	12/16/96	Y
Catholic Youth Building 150 Smith Ave. N.	17312	1	Underground			
Cherokee Ridge Condo 334 Cherokee Ave.	19785	1	Underground			
Clark Oil 430 S. Robert St.	18788	3	Underground	7644 7/18/94		

Collins Electric Co. 278 State St.	3467	3	Under/Above Ground			
Concord Texaco 205 Concord St.	12477	5	Underground			
Dunedin Terrace 469 Ada St.	3728	2	Underground			
Exec-U-Aire Hangar 278 Airport Dr.	53050	2	Aboveground			
Executive IFT 590 Bayfield Rd.	3465	3	Underground			
Farmland Industries Inc. 50 Chester St.	3421	2	Under/Above Ground			
Federal Aviation Admin- DWN/VOR St. Paul Airport-Control Office	8200	1	Underground			
Federal Aviation Admin- SE Min. SSC 644 Bayfield St./FAA Engine General Room	1433	2	Underground			
Federal Aviation Admin- Terminal Bldg.-St. Paul Airport	4104	1	Underground			
Federal Aviation Admin- GEP/VOR St. Paul Dwtn Arpt Terminal Bldg.	2898	1	Underground			
Federal Express 261 Chester St.	12115	2	Underground			
Former Service Station 62 Winifred St.	15273	4	Underground	4295 7/24/91	11/25/91	
Formerly American Hoist & Derrick Co. 63 S. Robert St.	3906	13	Underground	1288 7/7/89	12/18/93	
Formerly Casanova Rubbish 515 Ohio St.	17303	2	Underground	5947 11/17/92		
Formerly Unocal 40 E. Water St.	18428	1	Underground	3232 9/17/90	2/15/96	
G.H. Bell 500 S. Smith Ave.	3955	3	Underground			

Group Health Inc. 205 S. Wabasha	3522	1	Underground			
Holiday Stationstore #45 184 S. Wabasha	3596	6	Underground			
Horton Transportation 330 Bravo Ln.	17472	1	Underground			
Humboldt Apartments-Wilder Foundation 516 Humboldt Ave.	8995	1	Underground			
Humboldt Jr.-Sr. High 30 E. Baker St.	3388	4	Underground	1085 5/10/89	3/30/95	
Instrument Flight Training (IFT) 590 Bayfield St.	10290	2	Underground			
International Multifoods/St. Paul 243 S. Robert St.	3720	2	Underground			
Llewellyn Publishing 83 S. Wabasha St.	14218	3	Underground			
Metric Auto Works 511 Smith Ave.	3952	4	Underground	1234 6/22/89	4/9/90	
Mickeys-Eric Mattson Property 195 S. Robert St.	12906	6	Underground			
Minnesota Harbor Service 415 W. Water St.	50813	1	Aboveground			
Minnesota Jet Inc. 410 Bravo Ln.	15445	2	Underground			
Minnesota Mutual 285 Florida Ave.	52879	1	Aboveground			
MN Army National Guard 206 Airport Dr.	10283	3	Underground			
National Can Corp. (American Nat'l Can) 139 Eva St.	3719	11	Underground			
North St. Paul Gas 2498 7th Ave. E.	3412	3	Underground			
One West Water Street 1 W. Water St.	3463	1	Underground			

People's Electrical Contractors 277 E. Fillmore Ave.	3468	2	Underground			
Phoenix Residence Inc. 135 E. Colorado St.	3851	1	Underground			
Prince Co. Inc. 155 W. Plato Blvd.	3460	1	Underground			
Regent Aviation 515 Eaton St.	18651	3	Underground	1542 8/25/89	10/17/94	
Riverview Elementary School 271 Belvidere St.	3401	2	Underground	1084 5/8/89	9/15/89	
Riverview Hospital 225 Prescott	3462	2	Underground			
Roosevelt Elementary School 160 E. Isabel St.	3400	2	Underground			
St. Matthew Church 510 Hall Ave.	13414	1	Underground			
St. Paul Downtown Airport 590 Bayfield St.	54180	2	Aboveground	The next 3 could be at any 590		
St. Paul Downtown Airport (IFT) 590 Bayfield St.	10295	5	Underground	Bayfield St. Facility listed.		
St. Paul Downtown Airport (IFT) Hangar 590 Bayfield St.	10286	2	Underground	9175 4/1/96	8/7/96	Y
St. Paul Downtown Airport (MNARNG) 590 Bayfield St.	10287	2	Underground	4370 8/9/91 5572 8/25/92	10/11/93 12/30/94	
St. Paul Downtown Airport (W) 645 Bayfield St.	10289	1	Underground	The next 2 could be at either of the 645 Bayfield Facilities.		
St. Paul Downtown Airport Equipment Garage 645 Bayfield St.	10288	5	Underground	935 1/25/89 4458 8/24/91	10/17/94 11/23/92	
St. Paul Flight Center Inc. 280 Airport Dr.	3830	4	Underground			

St. Paul Pioneer Press-Dispatch 1 Ridder Cr.	3873	4	Underground			
St. Paul Yacht Club Harriet Island	3623	2	Under/Above Ground			
Sanborn Aviation Inc. 700 Bayfield St.	3466	4	Underground			
Smith E-Z Stop Store 778 S. Smith Ave.	3589	3	Underground	158 4/21/86		Y
Super America #4023 577 S. Smith Ave.	3814	4	Underground	9138 3/4/96		
Twin City Newspaper Services 220 E. Fillmore	19045	3	Underground			
United Parcel Service 150 State St.	3801	5	Underground	2921 7/19/90	10/12/94	
US Postal Service-VMF Riverview 314 Eva St.	3552	11	Underground			
Viking Drill & Tool, Inc. 355 State St.	55303	6	Aboveground			
Weinhagen Tire Co. 206 S. Wabasha	3656	2	Under/Above Ground			
West Side Auto Service Inc. (Closed) 617 Stryker	4093	3	Underground	5360 6/26/92		
Wilder Health Care Center 512 Humboldt Ave.	8992	3	Underground			
Wilder Residence West 514 Humboldt Ave.	3469	1	Underground			
Wings Inc. (St. Paul Downtown Airport) 670 Bayfield St.	10284	4	Underground	6985 11/2/93		
AASF-St. Paul 206 Airport Dr.	4034	4	Underground			
Kaplan Paper Box Co. 403 Fillmore Ave. E.	12357	2	Underground			

VII. Environmental Concerns

Overview of Environmental Regulation

People normally view environmental regulation as regulatory agencies working to stop pollution. On the contrary, environmental regulation is really about putting limits on the amount of pollution that enters the environment. In 1972 when the Clean Water Act was first passed, it stated: "it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985." We have failed to meet that goal. In essence, we have decided to pollute our environment.

Emissions limits are set based on the odds of people being adversely affected. For example, if the government decides that the acceptable risk of people being affected is 1 in 100,000, scientists will decide how much of a toxin can be released so as not to exceed that risk level. Industry is then permitted to pollute up to that level, and a violation occurs only when that level is exceeded. Violations are punishable by fines, but in some cases the dollar savings from illegally dumping waste or releasing pollutants can be greater than the fine. When polluting is legal and potentially cost saving when illegal, industry has little incentive to stop polluting from a regulatory standpoint.

This is a general overview of how most permitting works. Air, point source water (NPDES), sewer, and water usage is regulated in this way and these permits are tracked in this inventory. In the case of Hazardous Waste Generators, there is not a limit to the amount that can be produced, but a facility must obtain a license and show that it is working to decrease the amount of waste generated, as regulated by the Resource Conservation and Recovery Act (RCRA). The same is true for Community Right to Know Data, reported under the Emergency Planning and Community Right to Know Act (EPCRA). Information about the regulatory agency responsible for each and how to review files to continue to track permits is given in the overview for each category.

There are several levels of enforcement action taken against a facility if it violates its permit that are used with all permits: general correspondence, Letter of Warning (LOW), Notice of Violation (NOV), Administrative Penalty Order (APO), and Stipulated Agreement. All are represented here except for Stipulated Agreements. There is a lot of general correspondence that notifies a company that they may be in violation of their permit or could be if they don't take action. This type of correspondence usually happens immediately after an inspection of the facility. LOWs are the same type of correspondence, but more formal and official. They usually threaten an NOV if immediate action is not taken to resolve the potential problem. An NOV informs the facility that they are in violation of their permit and requires an immediate response to a problem. An APO sets a fine and conditions for returning to compliance. Stipulated Agreements are legal documents made by the facility and regulating agency which set specific conditions which must be met and fines which must be paid for a facility to continue business. Most violations in this inventory do not go beyond the NOV stage, and it seems that the people handling the cases have discretion as to which type of enforcement action will take place. The air permit violations show many LOWs and a few NOVs, while the sewer permits almost exclusively show NOVs and many of them set a fine as well, the only APOs are for violation of an NPDES permit, in which non-compliance took place over a long time period.

Environmental regulation doesn't take into account all of the processes that support industry such as trucks, trains, barges, etc. that burn fuel and go through other equipment such as cloth filters on diesel trucks, dredging to keep waterways deep enough, maintenance of highways and railways, etc. There is not regulatory structure outside of the industrial sector either, it is nearly impossible to document the pollution from residential inputs or regulate it. In this case, our best hope is education.

Air Pollution

Air pollution is regulated by the Minnesota Pollution Control Agency, Air Quality Division. The MPCA is given authority to issue permits under the federal Clean Air Act. Most of the permits only cover carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. It is therefore possible that facilities that report under the Community Right to Know Toxic Release Inventory will not have an air permit. There is some overlap, however, in that some of the permits cover toxins reported under the Community Right to Know data under the category of Volatile Organic Compounds (VOC). Permits are issued based on information provided by the facility and a request for a particular type of permit. Most permits in this inventory are General Requirement permits with special options that apply. Permits that are issued for facilities that cannot be covered by a General Requirement permit must also meet the general requirements along with the specific requirements set out in their specific permit. Usually, if a permitee cannot operate under only a general permit it is because the process they are using will emit pollutants not included in the general permit. Exceptions to the general permit may also be made and will be specified.

General Registration Permits are issued to facilities that only need permits because they are subject to federal New Source Performance Standards or facilities whose potential emissions exceed a permit threshold but whose actual emissions fall below federal thresholds due to operating limits, fuel use, control equipment, or other measures. There are four categories (Options A-D) of eligibility that must comply with applicable state rules and federal regulations along with specific compliance requirements for each option. Options B, C, and D are represented here. Option B is for sources whose only emissions are from the use of VOC-containing materials, insignificant activities, and dust from roads or parking lots if they use less than 2,000 gallons of VOC containing material in one year. The facility must keep records that prove that less than 2,000 gallons of VOC material was used in the last year. Option C is for sources whose only emissions are from boilers, internal combustion engines, VOC-containing materials, insignificant activities and dust from roads or parking lots. This option includes a method of quantifying total emissions and compliance must be shown monthly by recalculating the quantity. Option D facilities have the potential to emit pollutants at levels exceeding federal thresholds but reduces those emissions with pollution control equipment so that actual emissions are less than half of the federal thresholds. These facilities are required to recalculate actual emissions each month and meet the pollution control equipment performance standards. Control equipment must be used whenever the process equipment is in use and monitoring, operations and maintenance practices must be observed. Table 7 below describes the State and Federal Thresholds for pollutants regulated by a General Registration Permit.

Because of the cost and uncertainty in measuring pollution coming from a stack or from fugitive leaks, most types of pollution are regulated as to how much emissions-related material can be used in production processes, as is shown in Table 8 below. In most cases, emissions are calculated by the engineers at the particular facility based on operations.

While the air permits themselves are not included in these profiles, they can be reviewed at the MPCA. To review permits, make an appointment with the Air Quality Division by calling, faxing or mailing a list of the files you want to review. MPCA staff will locate the files and remove confidential information. After a restructuring in 1995, each facility has separate files for the permit itself and paperwork required to obtain a permit, correspondence, monitoring reports, and violations.

TABLE 7: STATE AND FEDERAL AIR POLLUTANT THRESHOLDS

Pollutant	State Threshold	Federal Threshold
Sulfur Dioxide	50 tons/year	100 tons/year
Fine Particles	25 tons/year	100 tons/year
Lead	0.5 tons/year	10 tons/year
Nitrogen Oxides	100 tons/year	100 tons/year
Carbon Monoxide	100 tons/year	100 tons/year
Combined Hazardous Air Pollutants (HAP)	25 tons/year	25 tons/year
One HAP	10 tons/year	10 tons/year
Volatile Organic Compounds (VOC)	100 tons/year	100 tons/year
Opacity	20% & 40% for 4 minutes in any 60 minute period	

TABLE 8: AIR PERMIT HOLDERS

AQD_FILE and Facility, Emission Inventory/ Permit# Year	Number of emission points, description	Permit Limits/Conditions (for specified emissions points given)	Control Equipment	Last Inspection/ Monitoring	Violations
23Y 3M Bldg. 76 410 E Fillmore Ave, 12300491-001 1995		Registration Permit General Requirements and Option B Requirements		--	None
23T 3M Bldg. 75 42 Water St. 12300411-004 1995	3 (1) Transdermal Pharmaceutical Pilot Coater (2) Dryer Oven (3) Portable Ammonia Reaction Unit (added 3/95)	Emission Limit: .098 gr/dscf Opacity: 20 % VOC: 1.9 tons/ 2 week period and 1 ton/day Fuel used: Natural Gas Emission Point: 40 ft above grade (25 ft above roof)	Thermal Oxidizer added before release to decrease VOC output due to an increase in operation input in order to keep output levels at permitted level. Added 5/95.	-- Must Submit: VOC material use reports monthly, daily and 2 week period VOC material use for review and calculation	None

1200C Amer. Natl. Can 139 Eva St. 1200C-91-0T-1 1991	15 (1-3) Printer Pin Oven (4-6) Spray Machine (7-9) Inside Bake Oven (10) Fugitives from 3 production lines including cleanup solvent (11) Overvarnish Tank (12)Crosslined Polyethylene Tank, Inside Spray Tank (13) Crosslined Polyethylene Tank, Hydraulic Tank (14) Crosslined Polyethylene Tank, Body Maker Tank (15) Crosslined Polyethylene Tank, Oily Waste Tank	PM (1-9): 0.1 gr/dscf PM-10 (1-9): 0.1 gr/dscf Opacity: 20%, except 60% for 4 min./60 min. period and 40% for 4 additional min./60 min. Hydrocarbons: (1-3): 3.84 lb. of VOC/g of coating solids, as a volume weighted calendar month average (4-9): 7.42 lb. of VOC/g of coating solids, as a volume weighted calendar month average Fuel Used (1-9): Natural Gas VOC usage limits: (1-3): 13,667 lb./month for 3 emission points combined (4-6): 42,617 lb./month for 3 emission points combined Stack Emissions Points (height, inside diameter, flow rate): (1-3): Stack, 52 ft, 2.5 ft, 6000 acfm at 325° F (4-6): 53 ft, 1.8 ft, 6917 acfm at 80° F (7-9): 59 ft, 2.5 ft, 3521 acfm at 230° F (10): N/A Vent Emissions Points (diameter, length): (11,12): 2 inches, 10 ft (13): 2 inches, 30 ft (14): 2 inches, 20 ft (15): 2 inches, 10 ft	None	6/95; Initial Compliance test for VOC, monthly VOC content, monthly VOC usage, end of construction, anticipated date of initial startup, actual date of initial startup.	Sept. 6, 1996: LOW for quarterly and semiquarterly VOC usage and exceedence of emission limits reports 15 days late. Nov. 22, 1993: LOW from 9/8/93 resolved. Sept. 8, 1993: LOW for same as 9/6/96 above. Also, reports seen during a quality inspection were never sent to MPCA and MPCA not notified of anticipated and initial startup of new pin ovens.

2920 Americraft Carton 403 Fillmore Ave 12300605-001 1995		Registration Permit General Requirements and Option D Requirements		--	None
3770 Baldinger Baking Ltd. 215 Eva St. 12300693-001 1997		Registration Permit General Requirements and Option D Requirements		--	None
627 Brown & Bigelow 345 Plato Blvd. None		No Air Quality Permit but required to submit Emission Inventory for fees and to access need for permit in future.		2/95	5/1/96: Failure to submit Emissions Inventory (EI) by April 1, 1996. 7/14/94: LOW for failure to submit EI. 6/1/93: NOV for failure to submit annual emission fees.
2901 C&H Chemical Co., 222 Starkey St. 12300497-001 1995		Registration Permit General Requirements and Option D Requirements		--	None
3281 Castro's Collision Ctr, 786 S Robert St. 00000698-001 1996		Registration Permit General Requirements and Option B Requirements		--	None
3050 Century Circuit/ Electronics, 155 Eaton St. 12300617-001 1995		Registration Permit General Requirements and Option D Requirements		--	None

2986 Consolidate Electric, 141 S Lafayette Fwy 12300609-001 1995		Registration Permit General Requirements and Option B Requirements		--	None
3695 Farmland Fertilizer 50 Chester St. 12300688-001 1996		Registration Permit General Requirements and Option D Requirements		--	None
124 Grief Bros. Corp. 551 Barge Channel Rd. None		No Air Quality Permit but required to submit Emission Inventory for fees and to access need for permit in future.		12/93	Jan. 5, 1994: Operation and Maintenance LOW: Observable emissions, wood burner not operated according to test conditions, opacity monitor not calibrated correctly, 3 of 8 filters loosely fitted, trailer receiving sawdust and chips poorly enclosed, fugitive emissions. Not fully resolved 2/9/94, fully resolved 3/21/94. March 10, 1993: LOW for no permit for installing a replacement cyclone.
2374 Gross-Given Mfg. 75 W Plato Blvd. 12300032 1995		Registration Permit General Requirements and Option D Requirements		2/97	None

2483B Minnesota Mutual 285 Florida St. 12300460-002 1995		Registration Permit General Requirements and Option C Requirements for Emergency Generator		--	None
1671 Pier Foundry and Pattern Shop 51 State St. 12300056 1995		Registration Permit General Requirements and Option D Requirements		5/95	May 25, 1993: NOV for failure to submit 1992 Air Pollution Emissions Inventory Report.
3283 Professional Auto Bldg., 584 Stryker Ave 00000778-001 1996		Registration Permit General Requirements and Option B Requirements		--	None
2863 St. Paul Pioneer Press 1 Ridder Cr. 12300409-001 1995		Registration Permit General Requirements and Option B Requirements		3/97	None
2926 Tursso Companies 223 Plato Blvd. 12300606-001 1995		Registration Permit General Requirements and Option D Requirements		--	None
2847 Vomela Spec. Co., 274 Fillmore 12300493-001 1995		Registration Permit General Requirements and Option B Requirements		--	None

National Pollution Discharge Elimination System Permits

The MPCA permits water polluters as part of its authority under the federal Clean Water Act. These National Pollution Discharge Elimination System (NPDES) permits limit the amount of pollution that can be discharged directly to a water body, in this case the Mississippi River. They also require periodic measurement and analysis of wastewater to determine if the limits are being met.

Permits are given for discharges of water used in activities such as manufacturing, non-contact cooling, or dredging operations. Polluted groundwater, or leachate, is also discharged under these permits. Like air permits, there are general requirement permits and permits with special conditions set on a permit-by-permit basis. If a facility can operate within the guidelines of the general permit, as described in the Table 9 below, they only apply for a general permit. The discharges under a General Permit are limited to non-contact cooling water free from other process and wastewater. Water treatments, chemical additives, floating solids and visible foam are not allowed. If a facility cannot operate within the general permit guidelines alone, it applies for a permit with special conditions. As with air permits, the special conditions usually apply to a pollutant not included in the general permit. Some polluters may discharge through the sewer system rather than directly to the Mississippi River and will not hold an NPDES permit, but instead a sewer permit.

The permits can be reviewed at the MPCA Water Quality Division by making an appointment and providing a list of the facilities you would like to review. Unlike air permits, all information about a facility is contained in one file.

TABLE 9: GENERAL NPDES PERMIT REQUIREMENTS

Parameter	Discharge Limitations (Daily Max.)	Monitoring Frequency	Sample Type
Flow (gal/day)	1,000,000	Quarterly	Daily Average Flow Estimate
Temperature	86° F (30° C)	Quarterly	Grab
pH (range)	6-9	Quarterly	Grab

TABLE 10: NPDES PERMIT HOLDERS

NPDES Permit Number, Facility	Discharges: Type and permitted limit	Use	Self Monitoring, Sample Type	Violations and Enforcement Action
MNG255013 Gross-Given Mfg. Co. 75 W. Plato Blvd.	General Permit			Problems with Residual Chlorine Discharge through 1993, system put in place 1994. Problems submitting monitoring reports (DMRs) through 1993.
MNG255045 Port Authority of St. Paul Brown & Bigelow Bldg. 345 E. Plato Blvd.	General Permit			Enforcement Action: 4/9/97: APO for failure to submit the Annual Operation and Maintenance Report for Dechlorination System due 12/31/96 and failure to submit DMR forms for all of 1996 and fourth quarter 1995. Unforgivable, $1,250 fine. Rated Minor Potential for Harm, Serious Deviation from Compliance. 4/2/96: APO for failure to submit Annual Operation and Maintenance Report for Dechlorination System due 12/31/95. Forgiven due to compliance, $500 fine. Rated Minor Potential for Harm, Minor Deviation from Compliance.
MN0054577 St. Paul Pioneer Press. 1 Ridder Cr.	Fremont 9119: less than 1 lb./day Fremont Bromicide: less than 1/2 lb./day Fremont 9151: unspecified	Algaecides and biocides to keep cooling tower clean and running efficiently.	Monthly, Grab	None

Sewer Permits

The Metropolitan Waste Control Commission, Environmental Services Division has permitting authority under Minnesota Statutes Chapter 473 and the Waste Discharge Rules for the Metropolitan Disposal System, and as part of the federal Clean Water Act, to permit industrial users to discharge wastewater through the city's sewer system to be treated at the Metropolitan Wastewater Treatment Plant. The industrial users are permitted to discharge certain levels of pollutants and monitoring is also required. Permits are available for review from the Metropolitan Waste Control Commission.

The Table 12 below gives information about each facility and the requirements of the permit they hold. For clarification, Total Toxic Organics are measured by the mean sum of the mass of each of the organics listed in the Federal Register which are found at concentrations above .010 mg/l. Oil and Grease may be analyzed as an alternative to analyzing Total Toxic Organics if proper techniques are used. Amounts are listed in milliliters unless otherwise noted, the only case of this is for American

National Can. Permits specify daily chemical amount limits, which are listed here, but some facilities also have monthly or other specified average amount limits which are not given. The facilities with limits listed deviate from the local pretreatment standards. Their limits are a combination of these local limits and EPA treatment standards for the specified type of facility (for example, American National Can's limits are a combination of local limits and can manufacturing facility limits as determined by the EPA). The limits are the same for facilities with "Local Pretreatment Requirements" listed. These limits can be found in Table 11 below.

TABLE 11: LOCAL PRETREATMENT REQUIREMENTS FOR SEWER PERMIT HOLDERS

Chemical	Limitations (ml)
Cadmium	2.0
Chromium-total	8.0
Copper	6.0
Cyanide-total	4.0
Lead	1.0
Mercury	.01
Nickel	6.0
Zinc	8.0
pH-maximum	11
pH-minimum	5
Metals and Cyanide amounts are the maximum for any 24 hour period.	
pH limits are continuous.	

TABLE 12: SEWER PERMIT HOLDERS

Permit Number, Facility, Date Issued	Chemicals	Amounts (ml)	Self Monitoring	Enforcement	Pollution Control
0028 American National Can 139 Eva July 1, 1996 Amounts reported in grams/million cans manufactured	Chromium-total Copper Zinc Fluoride Phosphorus Manganese Total Toxic Organics Oil and Grease	36.92 159.41 122.49 4,992.05 1401.13 57.05 26.85 1678.00	Quarterly; Process Discharge monitored from flume: Chromium, Copper, Zinc, Fluoride, Phosphorus, Manganese and Oil and Grease; Total Discharge from manhole: pH, Suspended Solids, and Chemical Oxygen Demand; Volume	Aug. 1, 1996: NOV for failure to complete and submit April-June 1996 Self Monitoring Report; Feb. 27, 1992: NOV for failure to meet pretreatment standards (daily limit) for fluoride Dec. 16-17 1991 and monthly limit Dec. 1991.	Spill Prevention and Countermeasure Plan

0105 Americraft Carton Inc. 402 Fillmore Feb. 1, 1997	Local Pretreatment Requirements		Yearly; Total Discharge from manhole: pH, Chemical Oxygen Demand, Suspended Solids and Grease and Oil; Volume	Feb. 4, 1997: NOV for failure to submit Jan.-Dec. 1996 Self Monitoring Report	
1066 C & H Chemical 222 Starkey Oct. 1, 1995	Local Pretreatment Requirements		Yearly; Total Discharge from manhole: Lead, pH, Chemical Oxygen Demand, Suspended Solids; Volume	None	Spill Control Plan
0448 Captain Ken's Foods Inc. 344 S. Robert St. Nov. 1, 1994	Local Pretreatment Requirements		Semi-Annually; Total Discharge from manhole: pH, Chemical Oxygen Demand, Suspended Solids and Grease and Oil; Volume	None	
0127 Century Circuits & Electronics 155 Eaton St. Nov. 1, 1996	Cadmium Chromium-total Copper Cyanide-total Lead Mercury Nickel Silver Zinc Total Metals Total Toxic Organics pH maximum pH minimum	1.2 6.7 4.3 1.8 0.6 0.1 4.0 1.2 4.0 10.1 2.04 11.0 5.0	Semi-Annually; Total Discharge from manhole: pH, Chemical Oxygen Demand, Suspended Solids, Copper, Lead, Mercury, Nickel, Cyanide and Grease and Oil; Volume	June 12, 1997: NOV for failure to meet Copper Standards Daily and Long Term; Listed in Star Tribune and Pioneer Press as having significant non-compliance with Pretreatment Program Regulations in 1996; Aug. 30, 1996: NOV for failure to meet daily Copper standards; June 4, 1996: NOV for failure to meet pH standards. Feb. 1, 1995: NOV for failure to submit July-Dec. 1994 Self Monitoring Report; Feb. 1, 1994: NOV for	Spill Control Plan and Total Toxic Organics Plan

				failure to meet Lead standards on 10/29/93 and failure to notify MWCC within 24 hours of knowledge of violation.	
0181 Gross-Given Manufacturing 75 W. Plato Blvd. Jan. 1, 1997	Cadmium Chromium-total Copper Cyanide-total Lead Mercury Nickel Silver Zinc Total Toxic Organics pH maximum pH minimum	0.69 2.77 3.38 1.20 0.69 0.1 3.98 0.43 2.61 2.13 11.0 5.0	Semi-Annually; Total Discharge from manhole: pH, Chemical Oxygen Demand, Suspended Solids; Volume	None since 1990	Spill Control Plan
0644 Pioneer Press 1 Ridder Cr. Aug. 1, 1996	Local Pretreatment Requirements		Semi-Annually; Total Discharge from manhole: pH, Chemical Oxygen Demand, Suspended Solids, Grease and Oil, Copper, Lead, Zinc; Volume	Aug. 3, 1993: NOV for failure to submit Jan-June 1993 Self Monitoring Report	
0015 Upper River Services 40 State St. Nov. 1, 1996	Local Pretreatment Requirements		Yearly; Total Discharge from manhole: pH, Chemical Oxygen Demand, Suspended Solids, Grease and Oil; Volume	March 5, 1992: NOV for failure meet pH requirements and failure to notify MWCC within 24 hours of violation	

Ground and Surface Water Users

Information on the users of ground and surface water comes from the Department of Natural Resources' list of Water Appropriation Permits. The DNR catalogs the location of the pump in a database by county, township, range, section, and quarter section (T, R, S, QQQQ) instead of by street address. The DNR uses letter codes for quarter sections: A refers to the Northeast quarter, B to the Northwest quarter, C to the Southwest quarter, and D to the Southeast quarter. Each quarter reported indicates the next quarter were the previous divided again, hence getting more precise with each quarter reported.

Table -- below includes information on where the water is taken from, how it is used, how much the facility is permitted to use (reported in gallons per minute and millions of gallons per year), and 1995 reported pumpage (millions of gallons per year).

TABLE 13: GROUND AND SURFACE WATER USERS

Facility and permit number	Location (T-R-S-QQQQ)	Taken From	Use	Permitted	Reported Pumpage
Captain Ken's Foods Inc. 856182	28-22-5-CDC	Ground Water	Agricultural processing (food and livestock)	500 GPM 10 MGY	2.5 MGY
Hawkin's Chemical Inc. 956208	28-22-9-CC	Ground Water	Mine Dewatering	800 GPM 3.5 MGY	not reported

Hazardous Waste Generators

Facilities that generate, treat, or store hazardous waste are required under the federal Resource Conservation and Recovery Act (RCRA) to obtain a license from the Ramsey County Department of Environmental Health. The RCRA is designed to keep track of hazardous waste from "cradle to grave," which means that the generator of hazardous waste is always responsible for the waste they create. The waste is divided into broad categories (waste codes) that indicate which wastes can be mixed together in one drum. Generators must meet requirements including: training workers that come in contact with the waste, keeping detailed records and submitting reports detailing production and volume, time limits on how long waste is stored before being sent for treatment or disposal, inspecting storage containers, cleaning up spills immediately, labeling as hazardous and dating all waste, preparing and updating a contingency plan (for an emergency), and making sure the waste reaches its "grave." This last step involves filing a manifest, or shipping paper, for all shipments of waste. Generators are also required to describe waste minimization efforts, although I did not find such information in some of the files I reviewed, as shown in the table. There are three categories of generators: Large Quantity, Small Quantity (SQG), and Very Small Quantity Generators (VSQG). The facilities are inspected by the Department's agents regularly for violations of the requirements listed above. Further breakdowns of the categories of violations listed in the table can be found in Appendix D-2.

Unlike other types of regulation, all facilities that produce hazardous waste must obtain a license, right down to the local schools and dentists. This accounts for the large number of generators; there are 113 generators located in the West Side community. These are listed with contact names and phone numbers in Appendix D-1. Because of time constraints, only 34 are included in Table 14 below. These were chosen first by whether they held any other permits, then all that would be assumed to be Very Small Quantity Generators were eliminated such as auto, health, and school facilities. Beyond that I simply started at the top of the list and recorded the information I could on those files that were available in the Ramsey County Department of Environmental Health office. I finished 19 facilities on my first trip to the office, and eliminated some further down the list if their industry (such as airport services) was represented. With some of the Very Small Quantity Generators I only listed amounts, the blanks are not intended to show no violations or minimization activity. This table is intended to be a snapshot of the sizes of generators and industry, the amounts of waste they produce, how much is kept on site, and what type of violations are common, it is not necessarily representative of the body of generators.

TABLE 14: HAZARDOUS WASTE GENERATORS

Hazardous Waste Facilities (ID number, name, address)	Type of Waste (Waste Codes)	Annual Amount (Gallons/ Pounds)	Method of disposal, location/ transportation	Amount stored On-Site	Waste Minimization Activity	Violations (Date, # of each type of violation see Appendix D-2)
1777709 3M Bldg. 75 42 Water St.	Flammable Liquid (F003, F005, D035, D001) Class 9 (D008, D009) PCB's and Ballasts (MN03)	28,425 P 225 P 65 P	Incinerated, 3M Cottage Grove " " " "	-- -- --	Yes- 5 step plan for all 3M locations part of Pollution Prevention Plan	12/21/95 Routine Inspection No Violations
0898001 3M Bldg. 76 410 Fillmore	PCB's and Ballasts (MN03) Fluorescent Lamps (D008, D009) Corrosive (D002) Circuit Boards (D008, D011) Methylene Chloride-Flammable Liquid (F002, F003) Petroleum Naphtha (D039, D035, D008, D006) Petroleum Oil (D008)	2500 P 937 P 99 P 71 P 114 P 46 G 943 P	Incinerated, 3M Cottage Grove " " " " " " " " Recycled, Safety Kleen Incinerated, 3M Cottage Grove	-- -- -- -- -- -- --	see above	12/28/95 Routine Inspection 1 General Requirement 1 Container 1 SQG (Small Quantity Generator) 12/1/93 Routine Inspection 4 General Requirement 5 Shipment 4 Waste Management

Hazardous Waste Facilities	Type of Waste (Waste Codes)	Annual Amount	Disposal	Stored On-Site	Waste Minimization	Violations Noted
2640146 3M-Aviation Department 690 Bayfield	Jet Fuel and Cleaning Solvent (D040, F001, F005, D035)	110 G	Incineration, 3M Cottage Grove	--	see above, plus 2 additional remarks after 1996 Inspection	6/5/96 Routine Inspection 2 General Requirements 3/25/94 Routine Inspection 1 General Requirement 1 Accumulation 4 Containers
	Aerosol Cans (D001)	200 P	" "	--		
	Batteries-- Non-lead Acid (D006)	180 P	" "	--		
	Absorbents/ Rags (F001, F005)	900 P	" "	--		
	Fluorescent Tubes (D009, D008)	110 P	On Site Accumulation, 3M	--		
	Flammable Gas (D001)	150 P	Cottage Grove Incineration, 3M	--		
	Laundered Rags (F005, D035)	1200 P	Cottage Grove Laundered, G & K Services, Mpls.	--		
	Used Oil (M100)	90 G	Reclaim, Safety Kleen	--		
5678770 Aero Systems Engineering 181 Florida	VSQG	226 P		103 P		
1776824 Aero Systems Engineering Inc. 358 Fillmore	VSQG	160 G 162 P		55 G 120 P		
9034694 American Nat'l Can Co. 139 Eva	Used Oil (M100)	49,219 G	"Exempt," fuel burning 1995, Safety Kleen, KY	--	None Listed; Good communication after 8/24 inspection to correct problems. Seemed to consistently decrease amount	5/30/96 Routine Inspection 3 General Requirements 3 Training 1 Contingency Plan 8/24/95 Routine
	Waste Oil Sludge (M100)	80 G	"Exempt," recycled 1996, Safety Kleen, KY	--		
	Contaminated Soil	220 P	"Exempt," land disposal, Safety Kleen, KY	--		
	Lead acid batteries	115 P	Recycled, Northern	20 P		

	(D008, D002) Inside Spray (F003) Aqueous Parts Cleaner (D008, D006) Petroleum Naphtha Parts Cleaner (D039) Glycol Ethers (D040)	 5775 G 996 G 198 G 440 G	Battery, St. Paul Fuel Burning, Safety Kleen, IL Recycled, Safety Kleen, IL Recycled, Safely Kleen, Eagan, MN Fuel Burning, Safety Kleen, KY	 495 G -- -- --	of waste generated over course of last few years. They have had a consistent number of violations, however.	Inspection 1 General Requirement 1 Container 1 Management and Accumulation 1 Shipments 1 Preparedness and Prevention 1 Contingency Plan
6149173 Americraft Carton Inc., 403 Fillmore	VSQG; Used Oil (M100) Press Wash (F005) Fluorescent Tubes (D009)	 1000 G 385 G 536 P	 Recycle, Safety Kleen Fuel Burning, Waste Research and ... Recycle, Recycle Lights	 -- -- --	None, will be a Small Quantity Generator 1997-1998.	6/25/96 Routine Inspection 2 General Requirements 4 Container 1 Used Oil
0682207 Army Aviation Support Fac., 206 Airport	listed as VSQG; Used oil (M100) Degreasing Solvent (D001) Batteries-- Non-lead Acid (D006) Batteries-- Non-lead Acid (D008)	 1450 G 279 G 328 P 1478 P	 Recycled, Barton Enterprises Recycled, Milwaukee Solvents Special Waste Program, DRMO-Duluth " "	 150 G 24 G 150 P 250 P	Very active in reducing waste, very good communication with county.	5/7/96 Routine Inspection 1 General Requirement 2 Accumulation 10 Shipment 1 Preparation and Prevention 2 SQG Requirements
6178651 Baldinger Bakery Ltd. Ptr 215 Eva	VSQG; Used Oil (M100) Degreasing Solvent (D001) Fluorescent Tubes (D009)	 200 G 73G 100 P	 Recycle, Safety Kleen " " Recycle, Dynex	 -- -- --	None	3/31/97 Follow-up Inspection 1 General Requirement 1 Shipping 1 Used Oil 6/7/96 Routine 1 Outdoor Container 1 Used Oil

Hazardous Waste Facilities	Type of Waste (Waste Codes)	Annual Amount	Disposal	Stored On-Site	Waste Minimization	Violations Noted
0065128 Bell Refrigerated Services Inc. 240 Chester	VSQG; Fluorescent Tubes (D009)	1263P	Recycle, Recycle Lights	--	Using some new high-efficiency lighting	7/9/96 Routine Inspection 4 Container
8903999 Bolander Carl & Sons Co. 251 Starkey	Classified VSQG; Lead Acid Batteries (D002, D008) Used Oil (M100) Used Oil Filters (D008) Degreasing Solvent (D001) Fluorescent Tubes (D009) Antifreeze (D008) Antifreeze (D008)	15,043 P 15,169 G 8,437 P 220 G 83 P 690 G 245 G	Recycled, Bauer Tire Recycled, Schoberl Oil Service Recycled, Edel Oil Recycled, Safety Kleen Recycled, facility not listed Treated then put into sewer, on-site Recycled, Ecotech, Chaska, MN	1200 P 275 G 560 P -- 86 P 107 G	None listed	5/23/95 Routine Inspection 1 Shipment 3 SQG Requirements
0826214 Brown & Bigelow 345 Plato	Lead Acid Batteries (D002) Used Oil (M100) Oil Absorbents (MN04) Press Wash (D001) Degreasing Solvent (D039) Fluorescent Tubes (D009) Toner (D001) Spent Fixer (D011)	120 G 560 G 400 P 505 G 183 G 693 P 45 G 620 G	Recycled, Gopher Smelting Fuel Burning, McCarthy Oil Fuel Burning, NSP Incinerated, Waste Research... Recycled, Safety Kleen Recycled, Recycle Lights Incinerated, Waste Research... Recycled, On-Site Management	-- 90 G -- 55 G -- -- -- --	None Listed	11/2/95 Routine Inspection 3 General Requirements 4 Containers 1 Accumulation 1 Waste Management 1 Shipment 1 SQG Requirement 7/23/93 Routine Inspection 2 General Requirements

						5 Containers 2 Waste Management 1 Shipment 8 Preparation and Prevention 1 SQG Requirement
6158901 C & H Chemical 222 Starkey St.	Batteries non-lead acid (D009) Mercury Debris (D009) Fluorescent Tubes (D009) Mixed Solvents (D001, F002, F003, F005)	0.7 P -- 19 P 50 G	Special Waste Program " " Recycle, Bumper to Bumper Fuel Burning, Systech	2 P .06 P 34 P 60 G	None listed; Have decreased waste considerably since 1995.	12/28/95 Routine Inspection No Violations
0683429 Castro's Collision Ctr. 786 Robert St.	Paint Waste (F005, F003) Paint Arrestors/ Dust (D008, D035) Fluorescent Tubes (D009, D001, D007)	474 G 50 G 15 P	Incinerated, PCI of Indiana Incinerated, PCI of Indiana Recycled, Ace Hardware, St. Paul	-- -- --	None Listed; amounts remain relatively stable year to year.	6/27/95 Routine Inspection 2 General Requirements 6 SQG Requirements (all possible) 2 Container 1 Accumulation

Hazardous Waste Facilities	Type of Waste (Waste Codes)	Annual Amount	Disposal	Stored On-Site	Waste Minimization	Violations Noted
5713452 Century Circuits & Electronics 155 Eaton	Cupric Chloride (D002)	18,640 G	Feedstock, US Filter Recycling Service	500 G	None Listed	12/13/96 Routine Inspection 2 General Requirements 5 Container 5 Training 11/28/95 Routine Inspection 1 General Requirement 1 Container 4 Training
	MRS Filters (F006)	5,775 G	Recycled, US Filter Recycling Service	225 G		
	Copper Sulfate Solution (D002)	3,410 G	Recycled, US Filter Recycling Service	--		
	Fluorescent Tubes (D009)	184 P	Recycled, Recycle Lights	60 P		
	Gold Bath (F007)	160 G	Recycled, Enviro-Chem	55 G		
	Gold Bath Filters and Solid (F008)	355 P	Recycled, US Filter Recycling Service	--		
	Solder Filters (D008)	400 P	Treated, shredded, then landfilled, Enviro-Chem	30 P		
	Silver Rags (D011)	100 P	Incinerated, Enviro-Chem	100 P		
	Waste Treatment Pre-Filters (F006)	4000 P	Shredded then landfilled, US Filter Recycling Service	100 P		
6162176 Consolidated Electric Co. 141 Lafayette	VSQG; Paint and Thinner Waste (F005)	55 G	Fuel Burning, Safety Kleen	< 10 G	Decreasing Paint and Thinner Wastes by using materials that don't need painting, looking into water based paint, using longer life fluorescent lights	11/22/94 Routine Inspection 2 General Requirements 1 Container
	Fluorescent Tubes (D009)	1176 P	Recycle, Mercury Technologies of...	1176P		
5722156 Farmland Industries 50 Chester St.	VSQG; Used Oil (M100)	120 G	Fuel Burning, Farmland	35 G	None Listed; went from a Small Quantity to Very Small Quantity Generator	8/5/94 Routine Inspection (SQG) 2 General Requirements 4 Container 1 Accumulation
	Used Oil Filters (D008)	150 P	Recycle, Safety Kleen	25 P		
	Lead Acid Batteries (D002)	250 P	Recycle, Bumper to Bumper	--		

	Fluorescent Tubes (D009)	100 P	Recycle, Recycle Lights	10 P		1 Waste Management
3035538 Greatwestern Recycling Inc., 521 Barge Channel Rd	Listed as VSQG; Used Oil (M100) Degreasing Solvent (D011) Antifreeze (D008) Fluorescent Tubes (D009) Spent Lead Acid Batteries (D002, D008)	 2265 G 68 G 140 G -- 9133 P	 Recycled, Bres Lube Recycled, Safety Kleen Recycled, Safety Kleen -- Recycled, Gopher Smelting	 250 G 10 G 100 G 34 P 250 P	Training; problems found during Routine Inspection Corrected	9/16/96 Routine Inspection 1 General Requirement 1 Used Oil (Container)
5768118 Grief Bros. Norco Division 551 Barge Channel Rd.	VSQG; Used Oil (M100) Used Oil Filters (D008) Lead Acid Batteries (D002) Fluorescent Tubes (D009)	 20 G 3P 50 P 15 P	 On-site Management Recycled, Local Service Station Recycled, Great Western Recycling Recycled, USA Lights	 15 G -- 50 P 10 P		7/26/96 Routine Inspection 2 General Requirement 1 Accumulation
6149942 Gross-Given Mfg. Co. 75 Plato	Used Oil (M100) Degreasing Solvent (D001) Solder/ Lead/ Circuit Boards (D008) Paint and Thinner Waste (F003) Fluorescent Tubes (D009)	480 G 519 G 890 P 110 G --	Recycled, Safety Kleen Recycled, Safety Kleen Recycled, USPCI Recycled, Safety Kleen Recycled, Recycle Lights	230 G -- 40 P -- 1000 P	None Listed	8/6/96 Routine Inspection 2 General Requirement 1 Accumulation 1 Used Oil (Container) 1 SQG Requirement 9/13/94 Routine Inspection 3 Container 1 Shipment 1 SQG Requirement

Hazardous Waste Facilities	Type of Waste (Waste Codes)	Annual Amount	Disposal	Stored On-Site	Waste Minimization	Violations Noted
0114231 Horton Transportation Inc.-Hanger, 330 Bravo	VSQG	132 G 42 P		65 G 60 P		
2606915 MAC Holman Field 645 Bayfield	VSQG	210 G		100 G		
0476867 Martinez Corporation, 240 Fillmore	VSQG	80G 0G 17P		-- 95G 17P		
0679815 Minnesota Mutual 285 Florida St.	Photo Fixer (D011) Press Wash (D001) Degreasing Solvent (D001, D039) Absorbents/Rags (D001, F005)	556 G 165 G 556 G 55 G	Treat then sewer, On-site Management Fuel Burning, Safety Kleen Recycle, Safety Kleen Incineration, Safety Kleen	-- 10G 45 G 5 G	None Listed	8/8/95 Routine Inspection 3 General Requirements 2 Container 1 Preparation and Prevention 1 SQG
5770148 Padelford Paddle Boat Co., Harriet Island	VSQG	220G 25P 400P 20G 100G		115G 5P -- 1G --		
0679088 Professional Auto Body 584 Stryker Ave.	SQG; Paint and Thinner Wastes	328 G	Fuel burning, Pollution Control	10 G	None Listed	8/8/95 Routine Inspection 1 General Requirement 1 Container 1 SQG
6158307 Soderberg Inc. 230 Eva	VSQG	100G 45G 20P		40G 30G 10P	Acquired a new coater which will decrease coating waste by 90%	

5744747 St. Paul Flight Ctr, 270 Airport	VSQG	515G 60G 24G		65G 30G 8G		
1200272 St. Paul Pioneer Press, 1 Ridder Cr.	Used Oil (M100) Clips and Leads (D008) Degreasing Solvent (D001) Photo Fixer (D011) Fluorescent Tubes (D009) Used Rages/Absorbent (D018)	500G 0P 64G 710G 1,610P 270P	Fuel Burning, McCarthy Oil Recycle, no facility listed Recycle, Safety Kleen Treat then sewer, On-Site Accumulation Recycle, USA Lights Recycle, Safety Kleen	20G <1P 10G 70G 1,530P --	None Listed Note: Requesting change of generator size to Very Small Quantity Generator Jan. 30, 1997; Ink Sludge judged non-hazardous.	12/2/96 Routine 1 General Requirement 1 Container 1 Used Oil
1959752 Tursso Co. Inc. 223 Plato	Used Oil (M100) Ink Sludge/Solvent (D001) Photo Fixer (D011) Fluorescent Tubes (D009) Absorbents/Rags (D001)	55G 440G 135 G 160P 8,588P	Recycle, First Recovery Recycle Incineration, Waste Research and Wid... Recycle, E.I. Dupont Recycle, USA Lights Commercial Laundry, Leef Bros	-- -- -- -- --	None Listed	8/18/95 Routine All Shipments (unable to review manifests) 1 Preparation and Prevention 1 SQG Req.
5672245 Twin City Refuse 318 Water	VSQG; Lead Acid Batteries	29,739P	Recycle, Midwest Recycling	140P		
0121426 Super America #4023 577 Smith	VSQG; Fluorescent Tubes (D009)	60 P	Recycle, Recycle Lights	--	None Listed	No Inspection

Hazardous Waste Facilities	Type of Waste (Waste Codes)	Annual Amount	Disposal	Stored On-Site	Waste Minimization	Violations Noted
5711522 Upper River Services 40 State	VSQG; Used Oil (M100) Used Oil Filters (D009) Lead Acid Batteries (D002) Degreasing Solvent (D001) Caustic Soda (D002) Fluorescent Tubes (D009) Sludge (D001, D018) Batteries non-lead acid (D009) Used Oil Pads (M100)	 5500G 550G 1406P 100G 10,000G 134.25P 345G 101G 1524P	 Recycle, Osi Environmental Inc. Recycle, Scrapbusters Recycle, Returned to seller Recycle, Safety Kleen On-Site Accumulation Recycle, Green Lights ?, Determan Special Waste Program, Krupenny & Sons Incinerate, Medical Safety Systems	 1000G 55G -- 10G 25,000G 1P -- -- 10P	None Listed, sent letter confirming compliance with last inspection violations; Changed to a Large Quantity Generator for May 1, 1997-April 30, 1998 licensing year.	4/18/96 Routine 1 General Requirement 1 Waste Management 2 Used Oil
0000121 US Post Office Vehicle Maintenance Facility 314 Eva	Lead Acid Batteries (D002) Used Oil (M100) Used Oil Filters (D008) Paint and Thinner Waste (F005) Degreasing Solvent (D001) Carb. Cleaner (D006, F002) Fluorescent Tubes (D009) Paint Filters (F008) Flammable Liquid (D001) Brake Wash (D039, D006)	8000 P 3000 G 3600 P 184 G 120 G 20 G 3 P 165 P 566 G 12 G	Recycle, Condura Mktg Co. Recycle, Safety Kleen Recycle, Oil Wringers Recycle, Safety Kleen " " " " Recycle, Dynex Recycle, Safety Kleen Recycle, Determan Tank and Welding Recycle, Safety Kleen	-- -- -- -- -- -- -- -- -- --	Good Communication with county, proof of training given.	1/28/97 Follow-up Inspection 4 General Requirements All Shipping Documents 1 Used Oil 1 SQG 6/27/95 Routine 3 General Requirements 1 SQG
0898126 Vomela Specialty Co. 274 Fillmore	VSQG; Naphtha (D001) Fluorescent Tubes (D009) Ink Sludge (D001)	 4450P 47P 2000P	 Fuel Burning, Pollution Control Recycle, USA Lights ?, Pollution Control	 490P 97P 300P	None Listed	3/27/97 Follow Up 2 General Requirements 3 Container 2 Shipping 4/18/96

						Routine 2 General Requirement 5 Container No Shipments

Community Right to Know Data

Community Right to Know Data is reported under the federal Emergency Planning and Community Right to Know Act (EPCRA). It is Section III of the 1986 Superfund Amendments and Reauthorization Act (SARA) It is commonly referred to as the Community Right to Know Act. This law is intended to inform the public about chemical hazards in their communities and to improve emergency planning for chemical accidents.

Toxic Release Inventory Data

Section 313 of the Community Right to Know Act requires manufacturers to report their emissions to air, land and water, disposal, treatment, and accidental releases for 360 "extremely" hazardous chemicals. The reports for each facility are submitted and the Toxic Release Inventory (TRI) is compiled by the Emergency Response Commission (ERC) annually. However, not all users of these toxic chemicals are listed in the inventory. Manufacturers only have to report if they have a Standard Industrial Classification (SIC) code between 20 and 39, employ ten or more full-time employees, manufacture or process 25,000 pounds or more per year, or use 10,000 pounds or more per year of a TRI chemical. The 1993 Minnesota Legislature expanded reporting requirements to an additional 13 SIC codes, and they too have to meet the employee and chemical use requirements. Some of the new SIC codes are still exempt in 1995 because of the time needed to comply with the reporting requirements. Emissions are also estimated, and because each facility does the estimations based on engineering calculations, material balance calculations, or published emission factors, the amounts are of unknown accuracy.

Under the 1990 "Minnesota Toxic Pollution Prevention Act," TRI facilities are required to develop a Toxic Pollution Prevention Plan for reducing or eliminating toxic pollutant releases. The Plan is a non-public document that is updated every two years. For a variety of reasons, it is difficult for facilities to define numeric objectives. About 40% of reporting facilities choose non-numeric objectives, which are difficult to summarize. This is the case with American National Can Company, the West Side's only TRI reporter. Their summarized plan simply states that they have non-numeric objectives for three of their chemicals, and that they have met those objectives. If a progress report does not fulfill the pollution prevention planning requirements, the ERC and Office of Environmental Assistance will review the plan and can hold a public meeting to discuss it. Citizens can also request that the ERC review the plan through a petition based on deficiencies with the Progress Report. Current and past Progress Reports are available at the ERC office for citizen review. The Pollution Progress Report is outlined in American National Can Company's facility profile, found in the Facilities section of this inventory.

Another alternative available is filing a Certificate Statement rather than the EPA Form R which is used to report TRI data. If a facility uses less than 1 million pounds of a chemical and has less than 500 pounds of on-site and off-site releases and transfers, they qualify. C & H Chemical Inc. qualified for this option. One additional facility on the West Side, Gross-Given Co. of 75 W. Plato, reported in 1994 but did not have to report in 1995. Reasons for this were not given in the TRI report.

Facilities are required to report chemical releases to air, land, and water. This data is not specified in the TRI for every

amounts are of

facility, but together is reported as "Quantity Released." Amounts of toxic chemicals recycled on or off-site, treated on or off-site, and used for energy recovery at the facility are also given. Released, recycled, treated, and recovered amounts, on and off site, are reported in Section 8 of the EPA's Form R and are the only data included here and in the TRI for every facility.

The Common Uses and Potential Human Hazards of Chemical Used chart summarizes information on the known potential effects of the chemicals reported here. Chemical Abstract Service (CAS) numbers and Toxicity Index Profile (TIP) numbers are also given. TIP numbers represent a measure of how many different potential toxic effects a chemical has by rating each on a 1 to 10 scale, one being lowest. An exposure to a toxic chemical can potentially, or is reasonably anticipated to result in, a particular health or environmental effect. If a chemical is not marked for a certain affect this does not mean that it is not associated with that effect, but rather that supporting data is not available or sufficient evidence was not found. Effects are listed with the chemical that they are associated with; Appendix E provides definitions for the effects in italics.

It is important to remember that a chemical risk involves both the toxicity and the magnitude and duration of exposure. Only magnitude of exposure (i.e., amount of chemicals) is given by TRI data and so direct releases to the environment are not a good indicator of human or environmental exposure to the chemicals. There are many factors that affect the degree of risk, such as distance from the pollution source and sensitivity to the effects. Therefore, it is difficult to determine the actual effects of the pollution produced by a particular company. Toxicology is still young, and information is not available on all health effects of all chemicals in use.

More information about toxic chemicals can be obtained from Hazardous Substance Fact Sheets, available at the ERC, prepared by the New Jersey Department of Health. Also, Material Safety Data Sheets (MSDS) are prepared by the manufacturer of the chemical or product and provide information about hazards associated with a substance and precautions that should be taken to avoid these hazards.

TABLE 15: FACILITY THAT FILED A 1995 CERTIFICATION FORM

Facility Name	ERC ID	Chemical Names
C & H Chemical 222 Starkey	62-070-0010	Glycol Ethers, Sodium Nitrite, Dichloromethane

TABLE 16: FACILITY THAT FILED 1995 EPA FORM R, TRI REPORTS

Facility Name	ERC ID	Chemical Names	Total Chemicals Managed
American National Can Co. 139 Eva Street	62-070-0003	Manganese and Compounds, Hydrogen Fluoride, N-Butyl Alcohol, Glycol Ethers	309,825 Pounds

Releases and Transfers (in pounds)

Chemical Name	Quantity Released	Recovery On-Site	Recovery Off-Site	Recycled On-Site	Recycled Off-Site	Treated On-Site	Treated Off-Site	Total Chemicals Managed
n-Butyl Alcohol	120,000		230					120,230
Glycol Ethers	150,000		1,500					151,500
Hydrogen Fluoride	38					38,000		38,038
Manganese and Compounds	57							57
Facility Totals	270,095		1,730			38,000		309,825

TABLE 17: COMMON USES AND POTENTIAL HAZARDS OF CHEMICALS USED

Chemical Name CAS number	Use	Hazards and Known Potential Human and Environmental Effects	TIP
n-Butyl Alcohol 000071363	Liquid used as a solvent for fats, waxes, shellac, resins, gums, and varnish	Flammable liquid and fire hazard; can damage liver, kidneys, hearing and sense of balance; can cause eye irritation and headaches, irritation to nose, throat may occur; *Chronic Toxicity.*	1
Glycol Ethers GLYCOL ET	Solvents	Toxic by inhalation, ingestion or skin absorption; irritating to eyes, nose, throat and skin; *Reproductive Toxicity, Developmental Toxicity.*	3
Hydrogen Fluoride 007664393	Used as a catalyst in petroleum industry, fluorination processes in aluminum industry; make fluorides, separation of uranium isotopes; making plastics and production of dyes.	Is a corrosive chemical; can irritate nose, throat and lungs; causing pulmonary edema; can cause severe burns to skin and eyes; may damage kidneys and liver; *Genetic and Chromosomal Mutagen; Developmental Toxicity; Reproductive Toxicity; Acute Toxicity; Chronic Toxicity.*	5
Manganese and Compounds 7439965	In aluminum production, steel making, metal purification and dry cell batteries, compounds used for varnishes, fertilizers, food additives.	Dust is flammable and moderately explosive; toxic by inhalation; *Reproductive Toxicity; Acute Toxicity; Chronic Toxicity; Nervous System Toxicant; Persistent.*	5

Chemicals Stored on Site

Under Sections 311 and 312 of the Emergency Planning and Community Right to Know Act, manufacturing and non-manufacturing facilities must submit reports on their inventories of hazardous chemicals for the preceding year to the Emergency Response Commission and the local Fire Department. These reports, sometimes referred to as Emergency and Hazardous Chemical Inventories, include types of substances by hazard category, such as immediate (acute) health hazards and fire hazards; amounts of hazardous chemicals stored; and locations of hazardous chemicals in storage. Chemicals reported are those designated as hazardous by the Hazard Communication Standard of the Occupational Safety and Health Act (OSHA) and exceed the minimum reporting levels. Chemicals to be reported are placed in one of two categories: Extremely Hazardous Substances (EHS) and hazardous chemicals, between which reporting levels vary. For an EHS, the minimum reporting threshold is 500 pounds or a chemical-specific threshold defined by OSHA, whichever is less. Hazardous chemicals which are not on the EHS list require reporting if stored in excess of 10,000 pounds. The EHS list contains about 360 chemicals which can cause serious human health effects from short-term exposures. Any facility that houses EHS chemicals beyond the threshold amount must have an emergency plan which details likely routes for EHS transportation.

Facilities and information about the chemicals they store are in Table 18 below. Facilities report the storage information in ranges of amounts, the maximum amount ever held (Max., 1-7) and the average daily amount (Ave, 1-7). N/R indicates not reported. All chemicals on this list are kept on site 365 days a year. Containers in which the chemicals are stored are coded by letter. The first number refers to the pressure conditions under which the chemical is kept (1-3), the second number refers to the temperature conditions the chemical is kept at (4-7). These codes are explained in Appendix F.

The table also contains information about the facilities. 302 refers to facilities that have chemicals on the EHS list. 312 refers to facilities that have hazardous chemicals that are not on the EHS list but are stored in excess of 10,000 pounds. If a facility has TRI chemicals on site, it is given code 313. That does not necessarily mean that the facility is required to report TRI data to the Emergency Response Commission as facilities must meet certain requirements (i.e., SIC code, number of employees, amount of chemicals managed). Some facilities reported in 1995 or 1996 with these conditions but are not currently in these categories, which is indicated (95, 96). It was also stated by the ERC that the reporting deadline for this information is March 1, so some of the facilities may not be accurately coded for type of facility at this point. In this case, a blank may not mean that the facility does not fall into a category.

TABLE 18: FACILITIES WITH CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0003	Fixodine 500 Replenishing	03	02	O14	Y	96	Y
American National Can	Fixodine 500 Replenishing F	03	02	O14			
139 Eva	Nitric Acid 42 Degree	03	02	D14			
	Ridoline 120WN 20%-40% (Hydrofluoric Acid)	04	02	E14			
	Ridoline 123 (20%-30% Sulfuric Acid)	04	03	D14			
	Sodium Hydroxide Solution	03	02	O14			
	Sulfuric Acid 66 BE	03	02	O14			

62-070-0007 Bell Refrigerated Services 240 Chester	Ammonia, Anhydrous	03	03	A25, C26, C36, C25			
62-070-0010 C & H Chemical, Inc. 222 Starkey	2-Butoxyethanol Methanol potassium Permanganate Sodium Hydroxide Sodium Metabisulfite Sodium Metasilicate Sodium Nitrite Sulfuric Acid	04 04 04 04 04 04 04 02	03 03 03 04 03 04 04 02	C14, E14, N14 A14, E14 D14, N14 C14, E14, N14 J14, N14 J14, E14, D14, I14 J14, E14, I14 E14	Y	96	Y
62-070-0011 Century Circuits & Electronics, Inc. 155 Eaton	Chlorine Hydrochloric Acid Sulfuric Acid	02 03 03	02 02 03	L24 A14, G14 C14, M14	Y	96	Y
62-070-0087 Hawkins Terminal #2 701 Barge Channel Rd.	Ferric Chloride Solution Nitric Acid Phosphoric Acid Potassium Hydroxide, Liquid Sodium Hydroxide, Liquid Sodium Hydroxide, Liquid	05 04 05 06 07 06	05 04 04 06 N/R 06	Q14 A14 A14 A14 A15 A15	Y	96	
62-070-0099 Brown & Bigelow, Inc. 345 Plato Blvd.	Acetone Isopropyl Alcohol Naphtha, VM & P	03 03 01	01 02 00	D14, F14, F14 D14, N14, F14 D14, F14		95	Y
62-070-0166 Super America #4023 (Ashland Oil) 577 Smith	Gasoline, Premium Unleaded Gasoline, Super Midgrade with Ethanol Gasoline, Unleaded	04 04 04	04 04 04	B14 B14 B14		95	
62-070-0297 Baldinger Bakery Ltd. Partnership 215 Eva	Diesel Fuel	04	04	B14		95	
62-070-0359 USPS Vehicle Maintenance Facility 314 Eva	Diesel Fuel Gasoline Motor Oil	05 04 04	04 04 04	B14 B14 B14		95	

Contaminated, Superfund, and Solid Waste Sites

Contaminated sites are generally defined as polluted acreage and buildings which do not pose a large enough health threat to make the National Priority List or the state's Superfund list, however there is no legal description. Uncertainties over legal and environmental issues, and the long timelines needed to get through them, can make the sites difficult to redevelop.

The Ground Water and Solid Waste Division of the MPCA maintains a "List of Sites" on their Master Entity System. They do charge a fee for a copy of the list based on time it took personnel to complete. There are 13 categories of sites; the West Side contains 25 sites that belong to these six categories (some sites have multiple listings):

- *No Further Remedial Action Planned (NFRAP)*: These sites were removed from the *Comprehensive Environmental Response, Compensation, and Liability Information System* (The US Environmental Protection Agency database of potential or actual hazardous waste sites nationwide which are candidates for addition to the federal and state Superfund list, none on the West Side) by the EPA. These sites are no longer considered a federal concern. Investigatory work at these sites is now funded through state dollars rather than through federal funds.
- *Permanent List of Priorities (PLP)*: The state Superfund list. A state listing of verified hazardous waste sites which represent a threat to public health or the environment and are priorities for cleanup. The PLP is updated annually.
- *DPLP*: Sites delisted from the Permanent List of Priorities by the MPCA.
- *List of Permitted Solid Waste Facilities (SW PERM)*: A listing of those facilities or areas in the state which have been issued permits for solid waste handling or disposal. This list is updated periodically as new sites are issued permits.
- *Metropolitan Area Waste Disposal Site Inventory (METRO)*: US Geological Survey topographic maps and Hudson's Street Maps which show the location of abandoned dumps, demolition sites, tree disposal sites, fly ash sites, foundry sand and slag sites, surface impoundments, and other dumps. Most of these sites were discovered prior to the creation of the MPCA and detailed information about them is generally not available.
- *Voluntary Investigation and Cleanup Program (VIC)*: A list of properties at which a voluntary investigation has been or is being conducted, with MPCA staff providing technical review of the investigation and any necessary remedial activities. A number of properties on this list have been investigated and cleaned up or found to not require any cleanup work.

TABLE 19: CONTAMINATED, SOLID WASTE, AND SUPERFUND SITES

Site Name, Address and Location (if applicable)	Link #, Township, Range, Section, Quad	NFRAP	PLP	DPLP	SW PERM	METRO	VIC
(Kaplan H.S) Metals Reduction, Inc. Krawczewski; 141 Water St. between Water St. and Yacht Club Rd.	837, T 28, R 22W, Sect 6D/C/C/D, Quad St. Paul East	X	X				X
Amdura (formerly American Hoist and Derrick); 68 S. Robert St.	453, T 28, R 22W, Sect 5B/C/C/A, Quad St. Paul East			X			

Barge Slip Demolition Site; between S. Barge Channel Rd and Concord St., Approx. 720 block	847, T 28, R 22W, Sect 9D/C/C/B, Quad St. Paul East					X	
Bell Cold Storage 236-260 Chester St.	4316, T 28, R 22W, Sect 5D/B/A/, Quad St. Paul E 7.5						X
Brown & Bigelow 345 Plato Blvd.	4321, T 28, R 22W, Sect 5A/C/C/C, Quad St. Paul E 7.5						X
Capital City Welding Supply 51 W. Water St.	4442, T 28, R 22W, Sect 6D/A/A/C, Quad St. Paul East						X
Fox Chemical 137-149 S. Robert St.	4128, T 28, R 22W, Sect 5C/B/B/D, Quad St. Paul E 7.5						X
Green Tree Hanger Holman Field near Eaton St.	4216, T 28, R 22W, Sect 8A/A/C/A, Quad St. Paul 7.5						X
High Density Bailing Plant; S. of Mississippi River, near Wood St. & Starkey St., W. of Robert St.	1081, T 28, R 22W, Sect 5C/C/B/D, Quad St. Paul 7.5				X		
Keith Krupenny & Son Disposal 750 Barge Channel Rd.	4392, T 28, R 22W, Sect 16A/B/A/B, Quad St. Paul East				X		
Northwestern Shot & Lead 75 Plato Blvd.	290, T 28, R 22W, Sect 6D/C/A/A, Quad St. Paul East	X					
Pier Foundry & Pattern Shop Inc. 51 State St.	106, T 28, R 22W, Sect 5B/C/A/D, Quad St. Paul East	X					
Port Authority Ash Site; between Bayfield St. & Ridder Cr.	834, T 28, R 22W, Sect 5A/D/A/A, Quad St. Paul East					X	
Proform Hazardous Waste Disposal NE of Concord St., near S. Barge Channel Rd, approx.	846, T 28, R 22W, Sect 9C/D/A/A, Quad St. Paul East					X	
Proform Inc. 15 W Barge Channel Rd.	71, T 28, R 22W, Sect 9C/B/D/C, Quad St. Paul East	X					
Riverview Area West; vic. of the Plato & Robert St. intersection	4415, T 28, R 22W, Sect 5C/B/D/C, Quad St. Paul East						X
Riverview Industrial N-1; approx. the 400 block of Ridder Cr., between Ridder Cr. and Mississippi River	4402, T 28, R 22W, Sect 5A/D/B/A, Quad St. Paul East						X
Secure Mini Storage 246 Eaton St.	4041, T 28, R 22W, Sect 8A/B/B/B, Quad not given						X

Site Name, Address and Location (if applicable)	Link #, Township, Range, Section, Quad	NFRAP	PLP	DPLP	SW PERM	METRO	VIC
St. Paul FC Project #2; Flood Fringe near Holman field	3434; T 28, R 22W, Sect 5A/C/A/A, Quad St. Paul East						X
State Street Dump, Viking Drill & Tool; 355 State St.; State St., Eva Ave, W. edge of St. Paul Airport & S of Fillmore Ave 3/4 sq. mile	826; T 28, R 22W, Sect 5D/B/C/A, Quad St. Paul East	X			X		X
Technical Sealants 43 Water St.	2801; T 28, R 22W, Sect 6D/A/B/A, Quad St. Paul East	X					X
Twin Cities Refuse Trans & Recycling Facility, Metro Refuse & Recycling T.S.; 318 Water St. West	1309; T 28, R 22W. Sect 7B/A/B/A, Quad St. Paul East				X		
United Health Care Hanger 513 Eaton St.	4179, T 28, R 22W Sect 8A/A/C/A, Quad St. Paul 7.5						X
United Postal Services-VMF 314 S. Eva St.	3422, T 28, R 22W, Sect 5C/D/B/D, Quad St. Paul East						X
Unocal Dewater; 40 E. Water St.	3161, T 28, R 22W, Sect 6A/D/C/D						X

There is one Superfund site on the West Side, Metals Reduction Inc., that is on the Minnesota State Permanent List of Priorities (PLP) but does not qualify for the Environmental Protection Agency's National Priority List (NPL). This means that it qualifies for state funding for cleanup. It is a Class C: Response Action Design and Implementation; and Class D: Remedial Investigation, Feasibility Study site and has a score of 2. Class C indicates that remedial design and implementation of response actions such as barrel removal, soil decontamination, first year ground-water pump-out or monitoring are necessary to effect a permanent remedy or cleanup of a site. Class D includes all sites that require a Remedial Investigation to determine the extent, magnitude, and nature of the release and a Feasibility Study to evaluate and select response actions. A site's score uses a mathematical model to assign a score from 1 (lowest) to 100 indicating the relative hazard posed by a site. To be eligible for the NPL and federal funding, a site must have a score of at least 28.5.

The Metals Reduction Site is contaminated with lead and the ground water is possibly contaminated. Actions to date include:

- Lead oxides placed in sealed container in June 1979.
- Removal of battery casings and oxides started November 1979.
- Soil borings completed July 1980.
- Monitoring plan submitted in December 1980 to determine extent of soil and groundwater contamination.
- MPCA requested additional information in June 1981.
- Company submitted consultant report in May 1981.
- City of St. Paul entered the Voluntary Investigation and Cleanup Program to investigate and remediate the site in March 1993.
- MPCA approved Phase I and Phase II workplan May 1993.
- MPCA approved Response Action Plan in January 1994.

- On-site stabilization and off-site disposal of lead-contaminated soil completed in July 1994.
- Corrective Action Documentation and Disposal Documentation reports submitted for review in September 1994.

Further Actions Needed:

- MPCA review of Corrective Action Documentation and Disposal Documentation reports.
- Potential issuance of No Further Action letter.

Noise Pollution

Both the MPCA and the City of St. Paul have set forth guidelines to regulate noise pollution. The City of St. Paul has divided enforcement of the noise ordinance between the Police Department and the City of St. Paul Community Services, Division of Public Health. The police are responsible for immediate violations concerning citizens such as noisy assembly, motor vehicles, horns, exhaust, defective vehicles, radios, paging systems, and domestic power tools. City of St. Paul Community Services, Division of Public Health is responsible for enforcing noise source limitations based on zoning codes. For industrial sections, the limit is 80 decibels (dBA) at all times. If there is a complaint about an industrial facility, the Office of License, Inspections and Environmental Protection will follow up the complaint by measuring the dBA level at the facility from the nearest point of human activity. If a violation is found, the Division of Public Health must issue orders for abatement of the noise.

Complaints about noise must be made to the correct office for the appropriate action. The St. Paul Citizen Service Office takes noise complaints; however, if the source is residential and needs immediate attention the best place to call is the police department at the time of the noise. Calling the Citizen Service Office at the time will not bring immediate results and calling the next day will not bring any enforcement action for the problem. If the source of the noise is industrial, calling the Citizen Service Office is the best course of action. These complaints can be followed up by the Office of License, Inspections and Environmental Protection. The St. Paul Downtown Airport has a noise complaint line as well for their operations.

The Citizen Service Office has received only 10 complaints on the West Side for all of 1996 and 1997. Six of these were concerning residential problems such as loud music that should have been handled by the police department; 2 were concerning an alarm at a commercial location that goes off every morning when employees arrive; 2 were about industrial noise. Of the 2 industrial noise complaints, one was about Alter Scrap Processing at 801 Barge Channel Road on July 12, 1996 (ID# 194987). The complaintant stated that the noise level was above normal the past few weeks. The second industrial complaint was about the airport at 644 Bayfield Street on September 19, 1996 (ID# 200551). The complaintant stated that the jet engines were intolerable between 2 and 4 AM and that the engines are turned on but the planes do not take off. The complaint was sent to the airport. No follow up information was given.

Holman field is a significant contributor to noise pollution, but reconciling the actual and expected amount of noise from the airport is a problem. The airport's noise contour lines from 1995 are shown on Map 5, which seems to show that noise should not be a problem in the residential area; however, as noted by the complaint above, airport noise does reach the residential neighborhood. The units used on the map (DNL) indicate Day-Night level. Moreover, with continuing expansion plans, there is even more potential for noise pollution problems.

Mosquito Control

The Metropolitan Mosquito Control District (MMCD) is the governmental agency responsible for controlling annoying and disease carrying insects. Their mission is to "suppress mosquito and tick transmitted disease and to reduce annoyance levels of mosquitoes and biting gnats which interferes with outdoor activities." MMCD's mosquito control program focuses on preventing mosquito larvae from leaving the water

through the mapping of nearly 60,000 breeding sites and treatment of these sites. Over 100,000 acres of the most productive sites are treated in the metropolitan area every year. Female mosquitoes lay eggs in a still, shallow areas with organic matter that will hold water for 7 to 10 days. The eggs hatch into larvae which will continue to develop in the water until they emerge as flying adult mosquitoes.

Two types of biological control materials are used which affect larvae. As with all control materials used, larvae must be found at threshold levels before treatment is done. The first control material is a naturally occurring bacteria called Bacillus thuringiensis israelensis (Bti). A dry granular formulation of the bacteria is applied to wetlands with above threshold levels of larvae by trained field staff in small areas and by helicopter over larger areas. Local police departments are notified when helicopter applications take place. The bacteria kills the larvae within 4 to 24 hours by deteriorating the gut. Bti is very mosquito specific because of the gut conditions and the way the bacteria reacts to those conditions. Bti has been judged as non-hazardous to humans, pets or wildlife and extensive knowledge indicates that it has no adverse environmental affects.

The other larvae control material is methoprene which is classified by the Environmental Protection Agency as a biological control, not a conventional chemical insecticide. It affects mosquito larvae by mimicking a specific hormone which allows the larvae to develop in the water by not allowing the larvae to develop into an adult. It has been judged an environmentally sensitive material and no harmful effects on humans, animals or plants has been shown. It also has minimal effect in the food chain because the larvae remain in the breeding site for the normal time.

Briquettes are placed in breeding sites less than 3 acres once a summer. Methoprene is released in small amounts throughout the season. Pellets, applied by hand or helicopter, are used in sites over 3 acres and are effective for about a month.

There are two materials used to control adult mosquitoes, permethrin and resmethrin. Both are synthetic pyroethroids which are similar in chemical structure to pyrethrum, a natural botanical insecticide that is an extract of a chrysanthemum flower. They are similar to over-the-counter products used to treat animals for fleas and ticks and humans for head lice. As always, mosquitoes must be at threshold levels before spraying is done, but treatments are done in and around park and recreation areas and for public events upon request. For a daily update of scheduled adult mosquito treatment locations, citizens can call the "Mosquito Control Information Line" at 643-8383.

Resmethrin is distributed from truck-mounted units in the evenings as a fog. The specimen label from AgrEvo, the makers of brand name insecticide "Scourge" which contains resmethrin as an active ingredient and is used by MMCD, includes precautionary statements about hazards to humans, domestic animals, and the environment. The chemical is harmful if swallowed or absorbed through the skin and prolonged inhalation is to be avoided. The pesticide is also highly toxic to fish; runoff from treated sites may by hazardous.

Permethrin is sprayed from backpack and all-terrain vehicle units during the daytime to wooded areas to control adult mosquitoes. It is sold by Clark under the brand name Permethrin 57% OS. It is harmful if swallowed or absorbed through the skin. Because the product contains aromatic petroleum solvent, aspiration may be a hazard. Environmental hazards include toxicity to fish and other aquatic life; runoff may be hazardous. It is also highly toxic to bees.

MMCD is regulated by state and federal law and is reviewed annually by an independent Technical Advisory Board. The annual report summarizes the previous year and presents plans for the coming year. Reports from the Technical Advisory Board (1981-1993) are available for review.

To assess environmental impacts from the larval mosquito control materials, research is directed by an independent Scientific Peer Review Panel (SPRP). No significant adverse environmental effects have been found in five years of research; however, in the January 1996 Final Report stated that many populations closely connected with wetlands were not studied. While the studies done can give us short-term information, the long term effects of altering the environment are not known. As stated in the SPRP Final Report, however, the demand for mosquito control is great. MMCD asserts that the

most "environmentally compatible" control methods are used; staff also keeps up with advances in mosquito control technology while evaluating alternative methods of control.

VIII. Facilities/Businesses

This section gives profiles of the 25 facilities on the West Side that hold a permit, report TRI data, or have chemicals stored on-site. All of the information collected on each facility is also included in each profile. This includes storage tanks on site, contaminated sites, accidental releases as found in the MPCA List of Spills of Petroleum Products and/or Hazardous Materials, and noise complaints as reported by the St. Paul Office of Citizen Services. Pollution Points, Parameters, and Report Requirements are included for those facilities that have the information specified in their permit. If a facility holds only a Registration (air) or General (water, sewer) permit, specific parameters and report requirements can be found in their respective Environmental Concerns section.

The information on pollution prevention comes from the Pollution Progress Reports submitted by TRI facilities (only American National Can) and the Minnesota Technical Assistance (MnTAP) Program database. The MnTAP program is supported with a grant from the Minnesota Office of Waste Management to the School of Public Health, Division of Environmental and Occupational Health, at the University of Minnesota. This nonregulatory program assists Minnesota businesses in identifying and implementing options to prevent waste generation and manage waste properly. There is no charge as the program is supported by industry fees. They provide telephone assistance, site visits, resource materials, seminars and workshops, and are part of a national network that allows businesses to exchange materials, putting one company's waste to use for another company. MnTAP focuses on pollution prevention which is good for the environment because pollutants are avoided before they can become a threat. It is also good for business because it reduces costs associated with handling waste, emissions, and regulations.

3M Bldg. 76
410 E Fillmore Ave.
(612) 778-4197

Home Office: 3M Center
St. Paul, MN 55101
(612) 733-1110
Number of Employees: 50-99

Yearly Sales: $10-20 million
Standard Industrial Classification (SIC): 2621: Paper manufacturing

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300491-001; 23Y	--	--	--	0898001
Date of Issue	1995	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit and Option B Requirements	--	--	--	PCB's and Ballasts, Fluorescent Lamps, Corrosive, Circuit Boards, Methylene Chloride, Petroleum Naphtha, Petroleum Oil
Report Requirements		--	--	--	N/A
Enforcement Activity	None	--	--	--	3 Violations: 1 General Requirement, 1 Container, 1 SQG
Last Inspection	--	--	--	--	Routine: 12/28/95

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: ID# 23945; Tank Leak of Chemicals/Other 7/3/96 of High Priority, no action taken by MPCA.
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

3M Building 75
42 Water St.
(612) 736-4455

Home Office: 3M Center
St. Paul, MN 55101
(612) 733-1110
Number of Employees: 8

Standard Industrial Classification (SIC): 2899 Chemicals and Chemical Preparations (Development)
Company Contact: John Seaver

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300411-004; 23T	--	--	--	0898001
Date of Issue	1995	--	--	--	N/A
Pollution Points	3	--	--	--	N/A
Parameters	Opacity, VOC, Fuel Used	--	--	--	Flammable Liquid, Class 9, PCB's and Ballasts
Report Requirements	VOC material use daily, bi-weekly, monthly	--	--	--	N/A
Enforcement Activity	None	--	--	--	None
Last Inspection	--	--	--	--	Routine: 12/21/95

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: ID # 6079 Accidental Release of Petroleum Product on 9/7/89 of unknown priority.
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

American National Can Corporation
139 Eva Street
ph. (612) 227-7211
fax (612) 227-8300

Home Office: 8770 W. Bryn Mawr Ave.
Chicago, IL 60631
(312) 399-3000
Number of Employees: 120

Yearly Sales: $10-20 million
Standard Industrial Classification (SIC): 3411 Metal Cans
Company Contact: Dave Staberg
Plant Manager: Al Albright

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	1200C-91-OT-1; 1200C	--	28	--	9034694
Date of Issue	1991	--	1996	--	N/A
Pollution Points	15	--	1	--	N/A
Parameters	PM, PM-10, Opacity, Hydrocarbons, Fuel Used, VOC	--	Chromium, Copper, Zinc, Fluoride, Phosphorus, Manganese, Total Toxic Organics, Oil and Grease	--	Used Oil, Waste Oil Sludge, Contaminated Soil, Lead acid batteries, Inside spray, Aqueous Parts Cleaner, Petroleum Naphtha Parts Cleaner, Glycol Ethers
Report Requirements	VOC monthly usage and content	--	Quarterly, process discharge from flume and from manhole.	--	N/A
Enforcement Activity	9/6/96 and 9/6/93 LOW for late quarterly and semiquarterly VOC usage and exceedence of limits reports.	--	8/1/96: NOV for failure to submit self monitoring reports. 2/27/92: NOV for exceedence of fluoride pretreatment standards.	--	6 Violations: 1 General Requirement, 1 Container, 1 Management and Accumulation, 1 Shipments, 1 Preparedness and Prevention, 1 Contingency Plan
Last Inspection	6/95	--	--	--	Routine: 8/24/95

Community Right to Know Data:
TRI DATA

Facility Name	ERC ID	Chemical Names	Total Chemicals Managed
American National Can Co.	62-070-0003	Manganese and Compounds, Hydrogen Fluoride, N-Butyl Alcohol, Glycol Ethers	309,825 Pounds

Releases and Transfers (in pounds)

Chemical Name	Quantity Released	Recovery On-Site	Recovery Off-Site	Recycled On-Site	Recycled Off-Site	Treated On-Site	Treated Off-Site	Total Chemicals Managed
n-Butyl Alcohol	120,000		230					120,230
Glycol Ethers	150,000		1,500					151,500
Hydrogen Fluoride	38					38,000		38,038
Manganese and Compounds	57							57
Facility Totals	270,095		1,730			38,000		309,825

CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0003 American National Can 139 Eva	Fixodine 500 Replenishing	03	02	O14	Y	96	Y
	Fixodine 500 Replenishing F	03	02	O14			
	Nitric Acid 42 Degree	03	02	D14			
	Ridoline 120WN 20%-40% (Hydrofluoric Acid)	04	02	E14			
	Ridoline 123 (20%-30% Sulfuric Acid)	04	03	D14			
	Sodium Hydroxide Solution	03	02	O14			
	Sulfuric Acid 66 BE	03	02	O14			

Storage Tanks: 11; ID# 3719
Accidental Releases: ID# 14439 Equipment Failure caused 30 gallon accidental release on 1/18/91.
ID# 16305 25 gallon leak of miscellaneous materials (unspecified) from cargo truck 6/2/92.
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: Have contacted the Minnesota Technical Assistance Program to identify pollution prevention and waste management options.. The most recent TRI Pollution Progress report, 1995, reports a 9,936 pound reduction in glycol ether from 1994 to 1995 and a 36,610 pound reduction from the 1991 baseline when production increases are factored in. A 143 pound reduction in manganese from the 1991 baseline was also achieved. Because the US EPA established that the metal alloy used must contain 1% manganese they are trying various washer chemicals which may cause less manganese to be released from the metal. To decrease their use of n-butyl alcohol the facility is working toward the development of coatings with less TRI chemicals through better application and improved equipment while working with customers to accept coatings with less TRI chemicals. A 9,753 pound reduction was achieved from 1994 to 1995 and a 10,748 pound reduction was achieved from the 1991 baseline when production increases are factored in.

Americraft Carton
403 Fillmore Ave.
ph. (612) 227-6655
fax (612) 227-4713

Ownership: Private
Home Office: 4323 Clary Blvd.
Kansas City, MO 64130
(816) 924-5700
Number of Employees: 125

Yearly Sales: $17 million
Standard Industrial Classification (SIC): 2657 Folding Cartons
President: Rick Johnson
Plant Operations Manager: Ted Klohs

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300605-001; 2920	--	105	--	6149173
Date of Issue	1995	--	1997	--	N/A
Pollution Points		--	N/A	--	N/A
Parameters	Registration Permit General Requirements	--	Local Pretreatment Requirements	--	VSQG; Lead acid batteries, Used Oil, Press Wash, Fluorescent Tubes
Report Requirements	and Option D Requirements	--	Yearly, Total Discharge from manhole.	--	N/A
Enforcement Activity	None	--	2/4/1997: NOV for failure to submit self monitoring reports.	--	7 Violations: 2 General Requirements, 4 Containers, 1 Used Oil
Last Inspection	--	--	--	--	6/25/96: Routine

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Baldinger Bakery Ltd. Partnership
215 Eva Street, PO Box 70125
ph. (612) 224-5761

Number of Employees: 125
Yearly Sales: $5-10 million
Standard Industrial Classification (SIC): 2051 Baked Goods

President: Robert S. Baldinger
General Manager: Steven Baldinger

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300693-001; 3770	--	--	--	6178651
Date of Issue	1997	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements and Option D Requirements	--	--	--	VSQG; Used Oil, Degreasing Solvent, Fluorescent Tubes
Report Requirements		--	--	--	N/A
Enforcement Activity	None	--	--	--	3 Violations: 1 Basic Requirement, 1 Shipping, 1 Used Oil
Last Inspection	--	--	--	--	3/31/97: Follow-up

Community Right to Know Data:
CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0297 Baldinger Bakery Ltd. Partnership	Diesel Fuel	04	04	B14		95	

Storage Tanks: 3; ID# 14277
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Pollution Prevention: None found for this facility.

Atlas Cold Storage
Formerly Bell Refrigerated Services
(only name has changed, all
other information accurate)
240 Chester Street
(612) 227-0741

Parent Company: Spire Group
Toronto, Canada
Number of Employees: 40
Yearly Sales: $2.5-5 million

Standard Industrial Classification (SIC): 4222 Refrigerated Warehousing and Storage
Manager: Dan Quinn

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	--	--	--	--	0065128
Date of Issue	--	--	--	--	N/A
Pollution Points	--	--	--	--	N/A
Parameters	--	--	--	--	VSQG; Fluorescent Tubes
Report Requirements	--	--	--	--	N/A
Enforcement Activity	--	--	--	--	4 Container Violations
Last Inspection	--	--	--	--	7/9/96: Routine

Community Right to Know Data:

CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0007 Bell Refrigerated Services 240 Chester	Ammonia, Anhydrous	03	03	A25, C26, C36, C25			

Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: Voluntary Investigation and Cleanup Program (236-260 Chester St.)
Pollution Prevention: None found for this facility.

Brown and Bigelow/Port Authority of St. Paul
345 E. Plato Blvd.
P.O. Box 64539, St. Paul 55164
ph. (612) 293-7000
fax (612) 293-7277

Ownership: Private
Number of Employees: 500
Yearly Sales: $75 million

Standard Industrial Classification (SIC): 2759 Calendars and Playing Cards
President: William D. Smith

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	627	MNG255045 (listed under Port Authority of St. Paul at this address)	--	--	0826214
Date of Issue	1997	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	No Air Quality Permit but required to submit Emission Inventory for	General Requirement Permit	--	--	Lead acid batteries, Used Oil, Oil Absorbents, Press Wash, Degreasing Solvent, Fluorescent Tubes, Toner, Spent Fixer
Report Requirements	fees and to access need for permit in future.		--	--	N/A
Enforcement Activity	5/1/96: Failure to submit Emissions Inventory. 7/14/94: LOW for failure to submit EI. 6/1/93: NOV for failure to submit annual emissions fees.	4/9/97: APO for failure to submit the Annual Operation and Maintenance Report for Dechlorination System and failure to submit DMR forms for all of 1996 and fourth quarter 1995. Unforgivable, $1,250 fine. Rated Minor Potential for Harm, Serious	--	--	11 Violations: 3 General Requirements, 4 Container, 1 Accumulation, 1 Waste Management, 1 Shipment, 1 SQG Requirement

Deviation from Compliance.
4/2/96: APO for failure to submit Annual Operation and Maintenance Report for Dechlorination System. Forgiven due to compliance, $500 fine. Rated Minor Potential for Harm, Minor Deviation from Compliance.

Last Inspection 2/95 -- -- -- Routine: 11/2/95

Community Right to Know Data:
CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0099	Acetone	03	01	D14, F14, F14		95	Y
Brown & Bigelow, Inc.	Isopropyl Alcohol	03	02	D14, N14, F14			
345 Plato Blvd.	Naphtha, VM & P	01	00	D14, F14			

Storage Tanks: 6; ID # 3554
Accidental Release: None
Noise Complaints: None
Contaminated Site: Voluntary Investigation and Cleanup Program
Pollution Prevention: None found for this facility.

C & H Chemical Inc.
222 Starkey Street
ph. (612) 227-4343
fax (612) 227-2485

Ownership: Private
Number of Employees: 14
Yearly Sales: $1-5 million

Standard Industrial Classification (SIC): 2842 Industrial Cleaning Compounds
President: William R. Cammack Jr.

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300497-001; 2901	--	1066	--	6158901
Date of Issue	1995	--	1995	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements	--	Local Pretreatment Requirements	--	Batteries non-lead acid, Mercury Debris, Fluorescent Tubes, Mixed Solvents
Report Requirements	and Option D Requirements	--	Yearly, Total Discharge from manhole.	--	N/A
Enforcement Activity	None	--	None	--	No Violations
Last Inspection	--	--	--	--	12/28/95: Routine

Community Right to Know Data:

FACILITY THAT FILED A 1995 CERTIFICATION FORM

Facility Name	ERC ID	Chemical Names
C & H Chemical 222 Starkey	62-070-0010	Glycol Ethers, Sodium Nitrite, Dichloromethane

CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0010	2-Butoxyethanol	04	03	C14, E14, N14	Y	96	Y
C & H Chemical, Inc.	Methanol	04	03	A14, E14			
222 Starkey	Potassium Permanganate	04	03	D14, N14			
	Sodium Hydroxide	04	04	C14, E14, N14			
	Sodium Metabisulfite	04	03	J14, N14			
	Sodium Metasilicate	04	04	J14, E14, D14, I14			
	Sodium Nitrite	04	04	J14, E14, I14			
	Sulfuric Acid	02	02	E14			

Storage Tanks: 8; ID# 50713
Accidental Releases: ID# 19603 Equipment malfunction lead to 50 gal. chemical leak (unspecified).
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: Have contacted the Minnesota Technical Assistance Program to identify pollution prevention and waste management options.

Captain Ken's Foods Inc.
344 S. Robert Street
ph (612) 298-0071
fax (612) 298-0849

Ownership: Private
Number of Employees: 25
Yearly Sales: $3-5 million
Standard Industrial Classification (SIC): 2038 Frozen chili, au gratin potatoes and baked beans. Brand name: Captain Ken's

Company Contact: Juanita Sweet
President, CEO: Jack LaMont
Plant Manager: Emil Volmer

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	--	--	0448	856182	--
Date of Issue	--	--	1994	--	N/A
Pollution Points	--	--	--	--	N/A
Parameters	--	--	Local Pretreatment Requirements	500 Gal/min.; 10 Million gal/year	--
Report Requirements	--	--	Semi-Annually; Total Discharge from manhole.	Pumpage	N/A
Enforcement Activity	--	--	None	--	--
Last Inspection	--	--	--	--	--

Community Right to Know Data: None
Storage Tanks: 2; ID# 18584
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Castro's Collision Center
786 S. Robert Street
(612) 291-2965

Number of Employees: 5-9
Yearly Sales: less than $500,000

Standard Industrial Classification (SIC): 7532 Top, Body and Upholstery Repair Shop and Paint Shop
Owner: Tony Castro

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	00000698-001; 3281	--	--	--	0683429
Date of Issue	1996	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements	--	--	--	Paint Waste, Paint Arrestors/Dust, Fluorescent Tubes
Report Requirements	and Option B Requirements	--	--	--	N/A
Enforcement Activity	None	--	--	--	11 Violations: 2 General Requirements, 6 SQG Requirements, 2 Container, 1 Accumulation
Last Inspection	--	--	--	--	Routine: 6/27/95

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Century Circuit and Electronics
155 Eaton Street
ph (612) 222-5833
fax (612) 290-0779

Number of Employees: 78
Yearly Sales: $10-25 million
Standard Industrial Classification (SIC): 3672 Flexible Circuit Boards

Owner: Dave Coyer
Production Manager: Mike Wertish

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300617-001; 3050	--	127	--	5713452
Date of Issue	1995	--	1996	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements and Option D Requirements	--	Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Silver, Zinc, Total Metals, Total Toxic Organics, pH	--	Cupric Chloride, MRS Filters, Copper Sulfate Solution, Fluorescent Tubes, Gold Bath, Gold Bath Filters and Solid, Solder Filters, Silver Rags, Waste Treatment Pre-Filters
Report Requirements		--	Semi-Annually; Total Discharge from manhole.	--	N/A
Enforcement Activity	None	--	6/12/97 and 8/30/96: NOV for failure to meet Copper standards; 6/4/96: NOV for failure to meet pH standards; 2/1/95: NOV for failure to submit self report; 2/1/94: NOV for failure to meet lead standards and notify MPCA.	--	12 Violations: 2 General Requirements, 5 Container, 5 Training
Last Inspection	--	--	--	--	Routine: 12/13/96

Community Right to Know Data:

CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0011	Chlorine	02	02	L24	Y	96	Y
Century Circuits & Electronics, Inc.	Hydrochloric Acid	03	02	A14, G14			
155 Eaton	Sulfuric Acid	03	03	C14, M14			

Storage Tanks: None
Accidental Releases: ID# 20290 Accidental release of wastewater or sewage on 10/8/94.
ID# 13769 Accidental release of 50 gal (unspecified) on 6/15/90.
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: Have contacted the Minnesota Technical Assistance Program to identify pollution prevention and waste management options.

Consolidate Electric
141 S. Lafayette
ph. (612) 224-9474
fax (612) 224-3628

Ownership: Public
Parent Company: Northwest Water, Inc.
P.O. Box 390
Newark, NJ 71010-0390
Number of Employees: 50

Yearly Sales: $5-7 million
Standard Industrial Classification (SIC): 3823 Water and wastewater automation systems
President: Randy Snyder

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300609-001; 2986	--	--	--	6178651
Date of Issue	1995	--	--	--	N/A
Pollution Points	Registration Permit General Requirements and Option B Requirements	--	--	--	N/A
Parameters		--	--	--	Paint and Thinner Wastes, Fluorescent Tubes
Report Requirements		--	--	--	N/A
Enforcement Activity	None	--	--	--	3 Violations: 2 General Requirement, 1 Container
Last Inspection	--	--	--	--	11/22/94: Routine

Community Right to Know Data: None
Storage Tanks: 3; ID # 14277
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Farmland Industries, Inc.
50 Chester Street
(612) 227-8358

Home Office: 3315 N. Oak Trafficway
Kansas City, MO 64116
(816) 459-6000
Number of Employees: 5-9

Yearly Sales: $2.5-5 million
Standard Industrial Classification (SIC): 5191 Farm Supplies
Manager: Randy Pick

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300688-001; 3695	--	--	--	5722156
Date of Issue	1996	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements and Option D Requirements	--	--	--	VSQG; Used Oil, Used Oil Filters, Lead Acid Batteries, Fluorescent Tubes
Report Requirements		--	--	--	N/A
Enforcement Activity	None	--	--	--	8 Violations: 2 General Requirement, 4 Container, 1 Accumulation, 1 Waste Management
Last Inspection	--	--	--	--	8/8/94: Routine

Community Right to Know Data: None
Storage Tanks: 2; ID # 3421
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Grief Brothers Corporation, Norco Division
551 Barge Channel Road
ph (612) 222-3880
fax (612) 292-9239

Ownership: Private
Home Office: 621 Pennsylvania Ave.
Delaware, OH 43015
(614) 363-1271
Number of Employees: 15

Yearly Sales: $500,000-1 million
Standard Industrial Classification (SIC): 2449 Wooden Barrels
General Manager: E.J. Falteisek
Plant Manager: Mark Falteisek

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	124	--	--	--	5768118
Date of Issue	--	--	--	--	N/A
Pollution Points	--	--	--	--	N/A
Parameters	No Air Quality Permit but required to submit Emission Inventory for	--	--	--	Used Oil, Used Oil Filters, Lead Acid Batteries, Fluorescent Tubes
Report Requirements	fees and to access need for permit in future.	--	--	--	N/A
Enforcement Activity	1/5/94: LOW for observable emissions, woodburner not operated according to test conditions, opacity monitor not calibrated correctly, 3 of 8 filters loosely fitted, trailer that receives sawdust and chips poorly enclosed.		--	--	3 Violations: 2 General Requirement, 1 Accumulation
Last Inspection	12/93	--	--	--	Routine: 7/26/96

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Gross-Given Manufacturing
75 W. Plato Blvd.
ph (612) 224-4391

Number of Employees: 312
Yearly Sales: $ 25-100 million
Standard Industrial Classification (SIC): 3581 Vending machines. Brand names: Automatic, Snack Shop
Chairmen: William Gross, J.B. Egerton Jr.
President: Alan Suitor

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300032-001; 2374	MNG255013	0181	--	6149942
Date of Issue	1995	--	1997	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements and Option D Requirements	General Permit Requirements	Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Silver, Zinc, Total Toxic Organics, pH	--	Used Oil, Degreasing Solvent, Solder/Lead/Circuit Boards, Paint and Thinner Waste, Fluorescent Tubes
Report Requirements			Semi-Annually; Total Discharge from manhole.	--	N/A
Enforcement Activity	None	None, problems with Residual Chlorine Discharge 1993.	None since 1990.	--	5 Violations: 2 General Requirement, 1 Accumulation, 1 Used Oil, 1 SQG
Last Inspection	2/97	--	--	--	Routine: 8/6/96

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: Have contacted the Minnesota Technical Assistance Program to identify pollution prevention and waste management options.

management options.

Hawkin's Chemical Terminal #2
701 Barge Channel Road
(612) 224-1903

Ownership: Public
Home Office: Hawkins Chemical
3100 E. Hennepin Avenue
Minneapolis, MN 55413
(612) 331-6910

Number of Employees: 1-4
Yearly Sales: $500,000-$1 million
Standard Industrial Classification (SIC): 5169-16 Chemicals (Wholesale)

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	--	--	--	956208	Inactive generator since 4/2/97, did not renew license for 1997-1998.
Date of Issue	--	--	--	--	N/A
Pollution Points	--	--	--	--	N/A
Parameters	--	--	--	800 Gal/min.; 3.5 Million gal/year	No Hazardous Waste On-Site
Report Requirements	--	--	--	Pumpage	N/A
Enforcement Activity	--	--	--	--	--
Last Inspection	--	--	--	--	3/31/97: Closure Inspection

Community Right to Know Data:

CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0087	Ferric Chloride Solution	05	05	Q14	Y	96	
Hawkins Terminal #2	Nitric Acid	04	04	A14			
701 Barge Channel Rd.	Phosphoric Acid	05	04	A14			
	Potassium Hydroxide, Liquid	06	06	A14			
	Sodium Hydroxide, Liquid	07	N/R	A15			
	Sodium Hydroxide, Liquid	06	06	A15			

Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: Have contacted the Minnesota Technical Assistance Program to identify pollution prevention and waste management options.

Minnesota Mutual
285 Florida Street
ph (612) 298-3489
fax (612) 223-4646

Home Office: 400 Robert Street N.
St. Paul, MN 55101
(612) 665-3500
Number of Employees: 280 (at 285 Florida St.)
Yearly Sales: Over 1 billion (total business)

Standard Industrial Classification (SIC): 6311 Life Insurance, 6411 Insurance Agents, Brokers and Service, 6141 Personal Credit Institution; this facility has a small print shop
Chairman: Coleman Bloomfield
CEO: Robert Senkler
Facility Contact: Tom Neckvatal

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300460-002; 2483B*	--	--	--	0679815
Date of Issue	1995	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements	--	--	--	Photo Fixer, Press Wash, Degreasing Solvent, Absorbent/Rags
Report Requirements	and Option C Requirements	--	--	--	N/A
Enforcement Activity	None	--	--	--	7 Violations: 3 General Requirements, 2 Container, 1 Preparedness and Prevention, 1 SQG
Last Inspection	--	--	--	--	8/8/95: Routine

* Air permit has been canceled. It was for an emergency generator but regulation has changed such that emergency generators do not need to be permitted.

Community Right to Know Data: None
Storage Tanks: 1; ID # 52879
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Pier Foundry and Pattern Shop
51 State Street
ph (612) 222-4461
fax (612) 222-4185

Ownership: Private
Number of Employees: 80
Yearly Sales: $$5-10 million

Standard Industrial Classification (SIC): 3321 Gray and ductile iron castings and wooden and metal patterns
CEO: Donald M. Grilz, Sr.
President: Randy Grilz

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300056; 1671	--	--	--	--
Date of Issue	1995	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements	--	--	--	--
Report Requirements	and Option D Requirements	--	--	--	N/A
Enforcement Activity	5/25/93: NOV for failure to submit 1992 Air Pollution Emissions Inventory.	--	--	--	--
Last Inspection	5/95	--	--	--	--

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: No Further Remedial Action Planned
Pollution Prevention: None found for this facility.

Professional Auto Body
584 Stryker Avenue
(612) 222-5900

Number of Employees: 5-9
Yearly Sales: less than $500,000

Standard Industrial Classification (SIC): 7532 Top, body and upholstery repair shop and paint shop, 5231 Paint, glass and wallpaper store
Owner: Bob M. Seaton

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	00000778-001; 3283	--	--	--	0679088
Date of Issue	1996	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements	--	--	--	Paint and Thinner Wastes
Report Requirements	and Option B Requirements	--	--	--	N/A
Enforcement Activity	None	--	--	--	3 Violations: 1 General Requirement, 1 Container, 1 SQG Requirement
Last Inspection	--	--	--	--	8/8/95: Routine

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

St. Paul Pioneer Press
1 Ridder Circle
Miami, FL 33132
(305) 376-3800

Ownership: Public
Home Office: St. Paul Pioneer Press
345 Cedar St.
St. Paul, MN 55101
ph (612) 222-5011
fax (612) 228-5064
Parent Company: Knight Ridder, Inc.
One Herald Plaza

Number of Employees: Plant: 250, Office: 550
Yearly Sales: $25-100 million
Standard Industrial Classification (SIC): 2711 Newspaper Printing
Senior Vice President: Tom Stephenson
Vice President of Operations: Larry Barr

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300409-001; 2863	MN0054577	--	--	1200272
Date of Issue	1995	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements and Option B	Fremont 9119, Fremont Bromicide, Fremont 9151	--	--	Used Oil, Clips and Leads, Degreasing Solvents, Photo Fixer, Fluorescent Tubes, Used Rags/Absorbents
Report Requirements	Requirements	Monthly	--	--	N/A
Enforcement Activity	None	None	--	--	3 Violations: 1 General Requirement, 1 Container, 1 Used Oil
Last Inspection	3/97	--	--	--	Routine: 12/2/96

Community Right to Know Data: None
Storage Tanks: 4; ID # 3873
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Super America #4023 (Ashland Oil)
577 Smith Ave.
(612) 228-9098

Parent Company: Ashland Oil, Super America Group, Inc.
3499 Dabney Dr.
Lexington, KY 40509
(606) 357-7777

Number of Employees: 10-19
Yearly Sales: $1-2.5 million
Standard Industrial Classification (SIC): 5411 Grocery Store
Manager: Mark Mortense

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	--	--	--	--	0121426
Date of Issue	--	--	--	--	N/A
Pollution Points	--	--	--	--	N/A
Parameters	--	--	--	--	Fluorescent Tubes
Report Requirements	--	--	--	--	N/A
Enforcement Activity	--	--	--	--	No Inspection
Last Inspection	--	--	--	--	--

Community Right to Know Data:

CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0166 Super America #4023 (Ashland Oil) 577 Smith	Gasoline, Premium Unleaded	04	04	B14		95	
	Gasoline, Super Midgrade with Ethanol	04	04	B14			
	Gasoline, Unleaded	04	04	B14			

Storage Tanks: 4; ID# 3814
Accidental Releases: ID# 15355 Spill of 2 gal. Petroleum Product on 9/22/91.
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Tursso Company
223 Plato Blvd.
ph (601) 222-0815
fax (612) 222-0376

Number of Employees: 100-249
Yearly Sales: $5-10 million
Standard Industrial Classification (SIC): 2752 Commercial Printing, 2751 Print Primary Product Labels, 2721 Publisher's black-brown systems

Owner, Chairman: Dennis Tursso
President: Jimid Meineke

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300606-001; 2926	--	--	--	1959752
Date of Issue	1995	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements and Option D Requirements	--	--	--	Used Oil, Ink Sludge/ Solvent, Photo Fixer, Fluorescent Tubes, Absorbents/Rags
Report Requirements		--	--	--	N/A
Enforcement Activity	None	--	--	--	All Shipments (unable to review manifests); 1 Preparation and Prevention, 1 SQG Requirement
Last Inspection	--	--	--	--	Routine: 8/18/95

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

Upper River Services
40 State Street
(612) 292-9293

Number of Employees: 50-99
Yearly Sales: $5-10 million

Standard Industrial Classification (SIC): 3731 Ship building and repairing
President: Lee Nelson

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	--	--	15	--	5711522
Date of Issue	--	--	1996	--	N/A
Pollution Points	--	--	--	--	N/A
Parameters	--	--	Local Pretreatment Requirements	--	VSQG; Used Oil, Used Oil Filters, Lead Acid Batteries, Degreasing Solvent, Caustic Soda, Fluorescent Tubes, Sludge, Batteries (non-lead acid), Used Oil Pads
Report Requirements	--	--	Yearly, Total Discharge from manhole	--	N/A
Enforcement Activity	--	--	3/5/92: NOV for failure to meet pH requirements and notify MWCC.	--	4 Violations: 1 General Requirement, 1 Waste Management, 2 Used Oil; Changed to a Large Quantity Generator May 1 1997-April 30, 1998.
Last Inspection	--	--	--	--	Routine: 4/18/96

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: ID # 19279 Spill of 3 gal Diesel fuel 4/14/94.
ID# 17473 Accidental release of petroleum product 3/2/93.
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: None found for this facility.

USPS Vehicle Maintenance Facility
314 Eva Street
(612) 293-3182

Ownership: Government Institution
Number of Employees: 50-99

Standard Industrial Classification (SIC): 4311 United States Postal Service
Manager: Betty Orme

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	--	--	--	--	0000121
Date of Issue	--	--	--	--	N/A
Pollution Points	--	--	--	--	N/A
Parameters	--	--	--	--	Lead Acid Batteries, Used Oil, Used Oil Filters Waste, Degreasing Solvent, Carb. Cleaner, Fluorescent Tubes, Paint Filters, Flammable Liquid, Brake Wash
Report Requirements	--	--	--	--	N/A
Enforcement Activity	--	--	--	--	2 General Requirements, All Shipping, 1 Used Oil, 1 SQG Requirements
Last Inspection	--	--	--	--	1/28/97: Follow-up

Community Right to Know Data:
CHEMICALS STORED ON SITE

ERC ID, Facility	Chemical Name	Max.	Ave	Storage	302	312	313
62-070-0359	Diesel Fuel	05	04	B14		95	
USPS Vehicle Maintenance Facility	Gasoline	04	04	B14			
314 Eva	Motor Oil	04	04	B14			

Storage Tanks: 11; ID# 3552
Accidental Releases: None
Noise Complaints: None
Contaminated Site: Voluntary Investigation and Cleanup Program
Pollution Prevention: None found for this facility.

Pollution Prevention: None found for this facility.

Vomela Specialty Company
274 Fillmore

Home Office: 321 E. Grove St.
St. Paul, MN 55101
ph (612) 224-2354
fax (612) 224-2359
Number of Employees (from home office): 60

Yearly Sales: $5-10 million
Standard Industrial Classification (SIC): 2759 Vinyl Graphics
Company Contact: Russ Myer
President: Dave DeGree

	Air Permit	NPDES Permit	Sewer Permit	Water Appropriation	Hazardous Waste
Permit/License Number	12300493-001; 2926	--	--	--	0898126
Date of Issue	1995	--	--	--	N/A
Pollution Points		--	--	--	N/A
Parameters	Registration Permit General Requirements and Option B	--	--	--	VSQG; Naphtha, Fluorescent Tubes, Ink Sludge
Report Requirements	Requirements	--	--	--	N/A
Enforcement Activity	None	--	--	--	7 Violations: 2 General Requirement, 3 Container, 2 Shipping
Last Inspection	--	--	--	--	Follow Up: 3/27/97

Community Right to Know Data: None
Storage Tanks: None
Accidental Releases: None
Noise Complaints: None
Contaminated Site: None
Pollution Prevention: Have contacted the Minnesota Technical Assistance Program to identify pollution prevention and waste management options.

IX. Recommendations

As can be seen from understanding environmental regulation, the relationship between business and government is strong while the citizens and nature affected by pollution are largely left out of the decision making process. This inventory is a step toward building relationships between citizens, business, and government. Active citizen involvement is the key to building better relationships within the neighborhood and beyond.

Because of the nature of regulation, businesses have little incentive for reducing pollution beyond the "bottom line." Only facilities that report TRI data must submit Pollution Prevention Plans and Pollution Progress Reports, but there is only one such facility on the West Side. Because all other regulation is not reducing the amount of pollution, it is up to the citizens to work for a change in regulation, which would be a long term goal. More immediate effects to benefit the neighborhood can be brought about by developing relationships with the businesses that are permitted to pollute.

One model for this approach is the Good Neighbor Project. The focus of this project is TRI facilities, but it is possible to extend the same principles to all polluters. Citizens can bring resources to a company that they had not been aware of or considered, such as the Minnesota Technical Assistance Program. The objective is to design an agreement between citizens and facility management about pollution reduction goals. Citizen involvement is the pressure that holds the company to the agreed upon goals through continued permit tracking and communication.

If some facilities are unwilling to develop community agreements, it is recommended that citizens form a watchdog group that can inform the neighborhood of incidents such as accidental releases or violations of permits. This can be achieved by tracking permits and checking regularly with the appropriate agencies for reported incidences. At times the regulatory agencies cannot handle the large amount of enforcement cases. A neighborhood watchdog program would be helpful in moving any action ahead with a phone call or letter of concern. It would also be advisable to go beyond this inventory by doing site checks of the facilities from time to time and reporting any suspicious activities or sights. This could lead to knowledge of a problem that the regulatory agencies would not have known about.

It is also recommended that the neighborhood reach out in some way to the many hazardous waste generators. A word of concern, encouragement, or offer of assistance to reduce or prevent waste could go a long way.

Many people express concerns about mosquito control methods in urban areas. While the Metropolitan Mosquito Control District maintains that they use the most environmentally friendly methods possible, it is important that those methods be used in the most efficient manner possible for the best results with the least amount of chemicals. Citizens can assure this efficiency through monitoring the activities of the MMCD in the neighborhood, for only the residents know how well current policies are working and could be of assistance in recognizing patterns of mosquito population growth that could lead to more efficient control. Citizens can also be sure to eliminate possible mosquito breeding grounds on their own property. Most importantly, knowing and publicizing when spraying will happen and where pellets or briquettes are being dropped is the most sure way of protecting everyone from hazardous chemicals.

While there were few noise complaints reported to the Citizen's Service Office, it is conceivable that there is much more noise pollution as a result of industry and the airport that is not reported. People come to believe that they must live with the noise of an urban area, but that is not the case. All facilities are subject to the St. Paul Noise Ordinance so chances are if it sounds too loud, it is. The only way to make the environment a better place is to become involved and make your voice heard. Creating a neighborhood network of reporting possible noise violations would be a good way to start. Creating a group who is responsible for reporting noise on behalf of the neighborhood would bring some weight to the voices of the neighborhood. Informing the Citizen's Service Office that the group and one

phone call represents a specific number of people would also have an impact. This approach may also be more effective because people tend to be reluctant to make such phone calls on their own.

Although a short discussion of environmental discrimination was included here, the discussion must not end here for this community. It is recommended that a study be conducted on the existence and extent of environmental discrimination in this neighborhood, how that has affected past and present environmental regulation, and how to approach these issues in the future.

Individual responsibility is the key to all of the recommendations made here, and it also goes for controlling individual pollution by activities such as recycling, controlling runoff, and pitching in to preserve and protect our natural resources. Education and outreach are the key to increasing individual responsibility.

X. Appendices

Appendix A: Comparison of race and socioeconomic status between St. Paul and the West Side

	St. Paul	West Side
Total Population	272,235	15,207
Race (percent)		
White	82.4%	74.8%
Black	7.5%	3.5%
American Indian, Eskimo, Aleut	1.2%	2.6%
Asian, Pacific Islander	7.0%	7.8%
Other Race	1.9%	11.2%
Persons of Hispanic Origin	3.8%	21.3%
Median Household Income in 1989	$26,498	$24,543
Per capita Income in 1989 (Dollars per person)	$13,727	$10,500
Income in 1989 below poverty level by Race (percent)		
White	10.2%	11.4%
Black	39.2%	50.2%
American Indian, Eskimo or Aleut	39.2%	40.6%
Asian or Pacific Islander	60.5%	66.2%
Other Race	30.6%	29.5%
Hispanic Origin	25.6%	22.5%
Total below poverty level	16.7%	20.1%

Appendix B: Plant and Animal Species found in Ramsey County

Birds:
Common Loon (Gavia immer)
Double-Crested Cormorant (Phalacrocorax auritus)
Pied-billed grebe (Podilymbus podiceps)
Red-necked grebe (Podiceps grisegena)
Black-crowned night-heron (nycticorax nycticorax)
Cattle egret (Bubulcus ibis)
Breat blue heron (Ardea herodias)
Great egret (Casmerodius albus)
Green heron (Butorides virescens)
Least bittern (lxobrychus exilis)
Little blue heron (Egretta caetulea)
Yellow-crowned night-heron (Nyctanassa violacea)
American black duck (Anas rubripes)
Blue-winged teal (Anas discors)
Canada goose (Branta canadensis)
Hooded merganser (Lophodytes cucullatus)
Mallard (Anas platyrhynchos)
Ring-necked duck (Aythta collaris)
Ruddy duck (Oxyura jamaicensis)
Wood duck (Aix sponsa)
American destrel (Falco sparverius)
Broad-winged hawk (Buteo platypterus)
Cooper's hawk (Accipiter cooperii)
Northern harrier (Circus cyaneus)
Peregrine falcon (Falco peregrinus)
Red-shouldered hawk (Buteo lineatus)
Ring-necked pheasant (Phasianus colchicus)
Ruffed grouse (Bonasa umbellus)
American coot (Fulica americana)
Common moorhen (Gallinula chloropus)
Sora (Porzana carolina)
Virginia rail (Rallus limicola)
American woodcock (Scologax minor)
Black tern (Chlidonias niger)
Common Snipe (Gallinago gallinago)

Forster's term (Sterna forsteri)
Killdeer (Charadrius vociferus)
Upland sandpiper (Bartramia longicauda)
Black-billed cuckoo (Coccyzus erythropthalmus)
Mourning dove (Zenaida macroura)
Rock dove (Columba livia)
Barred owl (Strix varia)
Eastern screech-owl (Otus asio)
Breat horned owl (Bubo virginianus)
Vorthern saw0whet owl (Aegolius acadicus)
Common nighthowk (Chordeiles minor)
Belted kingfisher (Ceryle alcyon)
Chimney swift (Chaetura pelagica)
Tuby thrated hummingbird (Archilochus colubris)
Downy woodpecker (Picoides pubescens)
Hary woodpecker (Picoides villosus)
Northern Flicker (Colaptes auratus)
Red-billed woodpecker (Melanerpes carolinus)
Red-headed woodpecker (Melanerpes erythrocephalus)
Yellow-bellied sapsucker (Sphyrapicus varius)
Alder flycatcher (Empidonax alnorum)
Eastern kingbird (Tyrannus tyrannus)
Eastern wood-pewee (Contopus virens)
Great crested blycatcher (Myiarchus crinitus)
Least flycatcher (Empidonax minimus)
Willow flycatcher (Empidonax traillii)
Bank swallow (Riparia riparia)
Barn swallow (Hirundo pyrrhonata)
Cliff swallow (Hirundo pyrrhonata)
Northern rough-winged swallow (Stelgidoxpteryx serripennis)
Purple martin (Progne subis)
Tree swallow (Tachycineta bicolor)
American crow (Corvus brachyrhynchos)
Blue jay (Cyanocitta cristata)
Black-caped chickadee (Parus atricapillus)
Red-breasted nuthatch (Sitta canadensis)
Tufted titmouse (Parus bicolor)
White-breasted nuthatch (Sitta carolinensis)
House wren (Troglodytes aedon)
Marsh wren (Cistothorus palustris)
Sedge wren (Cistothorus platensis)
American robin (Turdus migratorius)
Blue-gray gnatcatcher (Polioptila caerulea)
Eastern bluebird (Sialia sialis)
Golden-crowned kinglet (Regulus satrapa)
Veery (Catharus fuscescens)
Wood thrush (Hylocichla mustenlina)
Brown thrasher (Toxostoma rufum)
Cedar waxwing (Bombycilla cedrorum)
European starling (Sturnus vulgaris)
Gray catbird (Dumetella carolinensis)
Bell's vireo (Vireo bellii)
Red-eyed vireo (Vireo olivaceus)
Warbling vireo (Vireo gilvus)
Yellow-throated vireo (Vireo flavifrons)
American redstart (Setophaga rutacilla)
Common yellowthroat (Geothlypis trichas)
Ovenbird (Seiurus aurocapillus)
Prothonotary warbler (Protonotaria citrea)
Yellow warbler (Dendroica petechia)
Indigo bunting (Passierina cyanea)
Vorthern cardinal (Cardinalis cardinalis)
Rose-breasted grosbeak (Pheuticus ludovicianus)
Scarlet tanager (Piranga olivacea)
Chipping sparrow (Spizells passerina)
Clay-colored sparrow (Spizella pallida)
Field sparrow (Spizella pusilla)
Grasshopper sparrow (Ammodramus savannarum)
Rufous-sided towhee (Pipilo erythrophthalmus)
Song sparrow (Melospiza melodia)
Swamp sparrow (Melospiza georgiana)
Bobolink (Dolichonyx oryzivorus)
Brown-headed cowbird (Molothrus ater)
Common grackle (Quiscalus quiscula)
Eastern meadowlard (Sturnella magna)
Northern oriole (Icterus spurius)
Red-winged blackbird (Agelaius phoeniceus)
Western meadowlard (Sturnella neglecta)

Yellow-headed blackbird (Xanthocephalus xanthocephalus)
American glodfinch (Carduelis pinus)
Red crossbill (Loxia curvirostra)
Mammals:
Virginia opossum (Didelphis virginiana)
Arctic shrew (Sorex arcticus)
Masked shrew (Sorex cinerus)
Northern short-tailed shew (Blarina brevicauda)
Eastern mole (Scalopus aquaticus)
Star-nosed mole (Condylura cristata)
Big brown bat (Eqtesicus fuscus)
Eastern pipistrelle (Pipistrellus subflavus)
Eastern red bat (Lasiurus borealis)
Hoary bat (Lasiurus cinereus)
Little brown myotis (Myotis lucifugus)
Northern myotis (Myotis septentrionalis)
Silver-haired bat (Lasionycteris noctivagans)
Eastern cottontail (Lylvilagus floridanus)
Eastern chipmunk (Tamias striatus)
Fox squirrel (Sciurus niger)
Gray squirrel (Sciurus carolinensis)
Red squirrel (Tamiasciurus hudsonicus)
Southern flying squirrel (Glaucomys volans)
Thirteen-lined ground squirrel (Spermophilus tridecemlineatus)
Woodchuck (Marmota monax)
Plains pocket gopher (Geomys bursarius)
American beaver (Castor canadensis)
Common muskrat (Ondatra zibethicus)
Deer mouse (Peromyscus maniculatus)
House mouse (Mus musculus)
Meadow jumping mouse (Zapus hudsonius)
Meadow vole (Microtus pennsylvanicus)
Norway rat (Rattus norvegicus)
Southern red0backed vole (Clethrionomys gapperi)
White-footed mouse (Peromyscus leucopus)
American badger (Taxidea taxus)
Common raccoon (Procyon lotor)
Coyote (Canis latrans)
Eastern spotted skunk (Spilogale putorius)
Ermine (Mustela erminea)
Gray fox (Urocyon cinereoargenteus)
Least weasel (Mustela mivalis)
Long-tailed weasel (Mustela frenata)
Lynx (Lynx lynx)
Mink (Mustela vison)
Red fox (Vulpes vulpes)
Striped skink (Mephitis mephitis)
White-tailed deer (Odocoileua virginianus)
Mule deer (Odocioleus hemionus)
Amphibians and Reptiles:
Tiger salamander (Ambystoma tigrinum)
American toad (Bufo americanus)
Chorus frog (Pseudacris triseriata)
Eastern gray treefrog (Hyla versicolor)
Green frog (Rana clamitans)
Mink frog (Rana septentrionalis)
Northern leopard frog (Rana pipiens)
Spring peeper (Pseudacris crucifer)
Wood frog (Rana sylvatica)
Blanding's turtle (Emydoidea blandingii)
Painted turtle (Chrysemys picta)
Snapping turtle (Chelydra serpentina)
Spiny softshell turtle (Apalone spinifera)
Wood turtle (Clemmys insculpta)
Prairie skink (Eumeces septentrionalis)
Bullsnake (Pituophis melanoleucus)
Eastern garter snake (Thamnophis sirtalis)
Fox snake (Elaphe vulpina)
Milk snake (Lampropeltis triangulum)
Plains garter snake (Thamnophis radix)
Redbelly snake (Storeria occipitonaculata)
Smooth green snake (Opheodrys vernalis)
Western hognose snake (Heterodon nasicus)

Appendix C: MPCA Water Quality Report Category Descriptions

Overall: Support for all uses on the table.
Aquatic Life: Support for aquatic species.
Swimming: Acceptable for swimming.
Fish: Support for fish species.
Agricultural/Wildlife
304 (L)List Status:
A waterbody is on the long list if any one of the following is true:

- Greater than 10 percent of data values violate ambient water quality standards.
- A fish consumption advisory is in effect.
- Ambient data shows that water quality is lower than estimated to be attainable in the ecoregion.
- It is receiving water for a discharger that chlorinates but does not dechlorinate or where effluent toxicity test results indicate possible problems.

A waterbody is on the medium list if any of the following is true:

- Greater than 10 percent of values violate ambient water standards for unionized ammonia as nitrogen.
- A fish consumption advisory is in effect.
- It is receiving water for a discharger that chlorinates but does not dechlorinate or where effluent toxicity test results indicate possible problems.

Ammonia/Nitrogen: Based on 10 percent of observations violating ambient water quality standards for unionized ammonia as nitrogen.
Fecal Coliform: Based on 10 percent of observations violating ambient water quality standards for fecal coliform bacteria.
Metals: Mercury, Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Selenium, Zinc.
Priority Toxins: (1990-1991 water years only) Dioxin, PCBs
Nutrients: Nitrate/Nitrite or total phosphorus values that are higher than expected for the ecoregion.
Biochemical Oxygen Demand: Organic Enrichment, Dissolved Oxygen. Biochemical oxygen demand values higher than expected for ecoregion.
Suspended Solids: (1992-1993 water years only) total suspended solids contribute to pollution causes.
Other: (1990-1991 water years only) Total suspended solids, turbidity, or conductivity or if effluent toxicity test results indicate possible problem.
Nonpoint Indicator: Y=water quality less than achievable for ecoregion. Nonpoint Indicator is based on a comparison of values for total phosphorus, nitrate/nitrite, total suspended solids and biochemical oxygen demand with an estimate of achievable values for these parameters for the waters of the respective ecoregion.

Appendix D-1: Hazardous Waste Generators

ALL HAZARDOUS WASTE GENERATORS

Facility Name	Address	Contact	Phone
3M	42 Water Street	Dawn Drueger	778-4451
3M Bldg 76	410 Fillmore	Margaret Depuydt	778-4451
3M-Aviation Dept	690 Bayfield	Jamie Rue	778-6698
ABC Autobody	598 Smith	Joel Williams	222-5872
Aero Systems Engineering	181 Florida	Steve Scherman	220-1541

Aero Systems Engineering Inc.	358 Fillmore	Steve Scherman	220-1541
Air Regent Investors Inc.	290 Airport	Emmett O'Brien	224-1100
Albers Sheetmetal and Ventilation	200 Plato	Dan Stone	224-5428
Alter St. Paul Inc.	801 Barge Channel Rd.	Terry Nelson	222-2751
American National Can Co.	139 Eva	Al Albright	227-7211
American Red Cross NCBS	100 Robert	David H. Grono	291-3877
Americraft Carton Inc.	403 Fillmore	Theodore Klohs	227-6655
Army Aviation Support Facility	206 Airport	Thomas Bong	632-7566
Arrow Auto and Truck	780 Barge Channel	Loren Kegn	227-2200
Aviation Maintenance Inc.	800 Bayfield	Duane O. Arnedson	224-4614
Baldinger Bakery Ltd. Ptr.	215 Eva	Craig Halsey	224-5761
Bell Refriderated Services Inc.	240 Chester	Chuck Wilwert	227-0741
Bidwell Maintenance Inc.	150 Water	Dwayne Johnson	228-9610
Bjorkman Excavating and Trucking	91 Ridder Cr.	James Semple	772-1449
Bob's Litho Plate Service Inc.	284 Lafayette Frontage	Timothy Levi	227-4037
Bolander Carl and Sons Co.	251 Starkey	Dan Penny	224-6299
Brightbill Auto Service Inc.	291 Fillmore	Donald Brightbill	224-9459
Brown and Bigelow	345 Plato	Alan Pearson	293-7297
C & H Chemical Inc.	222 Starkey	Chuck Griggs	227-4343
Castro's Collision Center	786 Robert	Joette Ernst	291-2965
Century Circuits and Electronics	155 Eaton	David Coyer	222-5833
Collins Electrical Const.	278 State	Dan McGrath	224-2833
Concord Drug Co.	176 Concord	Ward Mens	227-6922
Concord Printing	36 Concord	Michael Costa	221-9029
Consolidated Electric Co.	141 Lafayette	Evan Shadduck	224-9474
Corporate Printing Inc.	188 Plato	Larry Satron	222-3943
Critical Care Services DBA Life Link III	336 Chester	Andrew Kirchoff	228-6800
Designer Selections Inc.	180 State	Stan Szymanski	293-1040
Distinctive Laundry Processing	531 Ohio	Jay Colleran	222-2246
Drake Marble Co.	60 Plato	John Wallner	222-4759
EAC Helicopters	780 Bayfield	Scott Greenan	292-0115
Farmland Industries	50 Chester	Randy Pick	227-8358
Federal Express Corporation	261 Chester	Hal Grey-Darby Feeney	291-7965
Former Fox Chemical	137-149 Robert	Darold McMahan	266-6612
Frank's Auto Service	150 Concord	Frank Gaston	222-1925

Glass Service Co. Inc.	150 Eva	Linda Buhl	293-9443
Great River Boatworks	84 Water	Rob Myhre	292-9365
Greatwestern Recycling Inc	521 Barge Channel Rd.	Thomas Swafford	224-4877
Grief Bros Corp; Norco Division	551 Barge Channel Rd.	Mark Falteisek	222-3880
Gross Given Mfg. Co.	75 Plato	Scott Edgerton	224-4391
Haas W J Mfg. Co.	160 Wabasha	Mark Haas	224-4391
Hawkins Terminal I	701 Barge Channel	Nick Engles	224-1903
Healthpartners St. Paul	205 Wabasha	James Oukrop	883-5621
Heritage Doorcraft	363 Robert	Chad Stone	224-5806
Horton Transportation Inc.-Hanger	330 Bravo	Randy Arnone	293-0833
Import Autobody Inc.	93 Annapolis	Hames Bottema	222-5187
Independent School Dist. #625	30 Baker	Ted Sherman	640-7884
J & J Recycling	607 Barge Channel Rd.	John Mudek	227-4457
J & L Wire cloth Co. Inc.	111 Belle	James Duppong	227-3099
Jack's Wabasha Tire	411 Wabasha	Jack Selix	228-9554
Jerry's Service Center	459 Robert	Scott Nowak	222-2943
Kelley's automotive	359 Robert	Michael Kelley	222-7374
Krupenny Keith & Son	750 Barge Channel Rd.	Keith Krupenny	457-3680
Lil' Engine Service Center	710 Smith	John Christopherson	293-9222
LMC International	291 Eva	Joe Kuidera	291-2929
Mac Holman Field	645 Bayfield		224-4306
Martinez Corporation	240 Fillmore	Glen Jentink	291-1127
McDonnell Stephen R. DDS	624 Smith	Stephen McDonnell	222-8984
McGraw's Furniture Repair	385 Wabasha	Dan McGraw	224-9237
Metric Auto Works Inc.	511 Smith	Mick Mohrlant	228-9840
Metropolitan Airport Commission	520 Eaton		224-4306
Midtling Oral & Maxillofacial Surgery	155 Wabasha	Bonnie Machtemes	222-6396
Minnesota Jet	410 Bravo	John Gray	291-2553
Minnesota Mutual Life Insurance Co.	285 Florida	Tom Neckvatal	298-3489
MN Dept. of Agriculture Lab Serv Div	90 Plato	Edward Chromey Jr.	297-8052
MN Dry Goods Printing	488 Robert	Robert M. Clouse	225-4726
MNDOT Aeronautics	222 Plato	One Time Disposal	
Monarch Wood Products Inc.	276 Chester	Phillip Ohmann	222-3213
Moore Robert W.	565 Barge channel	Michael Moore	227-3064
Nalco Printing Co.	1 Water	Steven Nippolt	222-8331

Padelford Packet Boat Co.	Harriet Island	Jim Kosmo/Steve Bowell	227-1100
People's Electric Co.	277 Fillmore	Joe Schletz	227-7711
Petronella Ytsma	643 Ohio	Petronella Ytsma	227-7100
Premier Dental Laboratiries	478 Robert	Robert Shelton	222-0741
Professional Auto Body	584 Stryker	Robert Seaton	222-5900
Ray Joseph Leasing and Sales	745 Robert	Ray Joseph	227-9733
Regent Aviation	529 Eaton	Emmet O'Brien	224-1100
Rogers Auto Parts Inc.	800 Barge Channel Rd.	Robert A. or Cindy Feldman	293-0300
RTC Inc.	343 Fillmore	Mark Duppong	222-7488
Semple Building Movers	91 Ridder Cr.	Denise Semple	774-7421
Soderberg Inc.	230 Eva	Ed Schmidt	291-1400
SPRC Packaging First	341 Chester	John Kruckten	290-0567
St. Paul Flight Center	270 Airport	David Lessard	227-8108
St. Paul Pioneer Press	1 Ridder Cr.	Michael Zapata	228-5003
St. Paul Impound Lot	830 Barge Channel Rd.	Jeff Hawkins	292-3630
Stryker Auto Service	542 Stryker	Van Vo Dong	222-5284
Summit Door Inc.	130 Eva	Keith Pollari	292-9711
Super America #4023	577 Smith	Todd Perrigo	228-9098
Swede Hollow	291 Fillmore	Erich Look	292-9683
The Crepeau Company	120 Plato	Michael Crepeau	224-7631
Thoele Printing Inc.	253 State	Ray Hundley	224-9631
Tursso Companies Inc.	223 Plato	John Ertel	222-8445
Twin Cities Newspaper Service	220 Fillmore	Paul Kutzik	222-8298
Twin City Refuse	318 Water	Greg Gubash	227-1549
Upper River Services	40 State	John Devaan	292-9756
US Check	527 Eaton	Dave Gain	228-1893
US Post Office Vehicle Maintanence Facility	314 Eva	Donna Olson	293-3172
Valspar Paint	106 Fillmore	Bruce Herman	222-8435
Viking Drill and Tool Inc.	355 State	George Emslie	227-8913
Vomela Specialty Co.	274 Fillmore	Bob Cammack	228-2200
Wabasha Bisiness Center Norris	122 Wabasha	William C. Norris Jr.	291-7383
Wanderer The	201 Ohio	Gene Reber	224-5733
Weinhagen Tire co.	206 Wabasha	Michael Weinhagen	222-4736
West Side Community Health Center	153 Concord	Teresa Quinn	222-1816
West Side Health Center Dental	187 Concord	Brad McDonnell	225-9704

Whebbe Auto Service	71 Annapolis	Gregory Whebbe	291-7864
Wilder Senior Dental Program	516 Humboldt	Barbara J. Smith	220-1812
Wilder Senior Health Clinic	516 Humboldt	Gregory Abbott	220-1808

Appendix D-2: Expanded Hazardous Waste Generator Violation Codes

Categories of Hazardous Waste Violations
Basic/General Requirement

- License Current/Posted
- EPA ID#
- Waste Evaluation
- License Application Submitted
- Had Unlicensed Hazardous Waste >75 days
- POTW Reports Available
- Record Retention
- Document 75% Recycle of FS/BP
- Feedstock/Byproduct Annual Certification
- Previous Orders Complied with
- Entry Allowed

Storage/Container Requirements

- Weekly Container Inspection
- Container in Good condition
- Containers Closed
- Containers Dated Start/Fill/Move
- "Hazardous Waste" Marking
- Descriptive Name
- Container Compatible with Waste
- Proper Ignitable/Reactive Management
- Incompatible Waste Separated
- Liquids on Impermeable Surface

Outdoor Storage Requirements

- Liquid on Impermeable Surface
- Ignitable Waste Shaded
- Protected: Moisture, Entry, Damage

Accumulation Requirements

- Max. Accumulation Volume <1000 Kg (VSQG)
- 180/270 Days Storage Maximum
- Spent Lead Acid Battery Storage

Waste Management Requirements

- Relinquishing Control
- Report/Recover Spills
- Operate to Prevent Release
- Adequate Aisle Space

Preparation and Preparedness Requirements

- Internal/External Communication
- Communication in Waste Area
- Emergency Spill/Fire Equipment
- Equipment Tested/Maintained
- Notification Sent to Local Authorities
- Includes Layout/Wastes/Work Areas
- Entrances/Evacuation Routes
- Contingency Plan Refusal Documented

Shipping Requirements

- Proper Manifests
- Copies Available on Site (3 years)
- Manifests Properly Completed
- Initial Copy to MPCA (5 days)

- Final Copy to MPCA (40 days)
- 45 Day Exception Report
- VSQG Collection Receipts
- Recycling/ Special Waste Receipts
- Feedstock/Byproduct Bill of Lading (3 years)
- International Shipments
- LDR Documentation Available (5 years)

Used Oil and Release Wastes Requirements

- Containers
- Labeling
- Recycling Receipts (3 years)
- VSQG Used Oil Mixed with D001 Only
- Used Oil Burnt On-Site

Pretreatment/pH Neutralization

- Pretreatment Inspection Schedule
- Inspection Log Matches Schedule

SQG Requirements

- Designated Emergency Coordinators
- Telephone Posting
- Emergency Coordinator Name and Phone
- Locations of Fire/Spill Equipment
- Fire Dept. Phone Number (911)
- 3000 Kg Storage Maximum
- Personnel Training Documented

Appendix E: Known Potential Adverse Human and Environmental Affects of Applicable TRI Chemicals

Genetic and Chromosomal Mutagens: These are chemicals that can cause the genes (DNA) in a sperm or an egg to be mutated or changed. Those Changes can then be passed along to a baby. Changes to other cells in the body, such as cells in the liver, can also occur.

Developmental Toxicity: These are chemicals that affect the development of a baby inside its mother. Being exposed to such chemicals can cause miscarriages and physical defects to the baby.

Reproductive Toxicity: These are chemicals that can damage the ability of men and women to reproduce.

Acute Toxicity: Short term exposures, either through the lungs, mouth, or skin, can cause death.

Chronic Toxicity: Exposure over a long period can cause damage other than cancer, such as lung, liver, or kidney problems.

Nervous System Toxicants: These include chemicals such as solvents and glues that cause problems with the brain and nervous system. These effects can be either temporary or permanent.

Persistent: This means that the chemical is stable and does not break down very easily once it enters the environment.

Appendix F: Chemical Stored on Site Table Codes

Maximum and Average Amounts in pounds:
01: 0-99
02: 100-999
03: 1,000-9,999
04: 10,000-99,999
05: 100,000-999,999
06: 1,000,000-9,999,999
07: 10,000,000-99,999,999
Storage Codes
Container
A: Above Ground Tank
B: Below Ground Tank
C: Tank Inside Building
D: Steel Drum
E: Plastic or non-Metallic Drum
F: Can
G: Carboy (Type of Drum)
I: Fiber Drum
J: Bag
L: Cylinder
M: Glass Bottle or Jar
N: Plastic Bottle or Jar
O: Tote Bin
Q: Rail Car
Pressure
1: Ambient Pressure (Normal)
2: Above Ambient Pressure
3: Below Ambient Pressure
Temperature
4: Ambient Temperature
5: Above Ambient Temperature
6: Below Ambient Temperature but not Cryogenic
7: Cryogenic (Frozen)

Appendix G: Resources

Minneapolis Public Library: 372-6500
Climatology: Climatology Working Group: State Climatology Office-DNR Waters Extension Climatology Office-Minnesota Extension Service Academic Climatology-University of Minnesota: http://www.soils.agri.umn.edu/research/climatology
Temperature Inversion/Negative Inversion:
Air Pollution Primer. National Tuberculosis and Respiratory Disease Association, New York, NY. 1969.
Demographics: St. Paul Planning District 3 1990 Census Data
Environmental Discrimination:
Bullard, Robert D., Ed. Confronting Environmental Racism: Voices from the Grassroots. South End Press, Boston, Mass., 1993.
"Environmental Protection--has it been fair?" EPA Journal 18 (March-April 1992): whole issue (64p.)
Maps: Natural Resources map and Original Vegetation/ Wetlands: DNR Natural Heritage Program: 296-6157
John R Brochert Map Library, U of M, 625-9024
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Federal Emergency Management Agency, National Flood Insurance Program. Flood Insurance Rate Map, City of St. Paul, Minnesota (Panel 20 of 20). revised August 3, 1989.
Animal Populations: Ramsey County Survey: Director of DNR Fish and Wildlife Roger Holmes, fax: 297-7272; DNR Nongame Wildlife Dept.: 297-2277; Urban Wildlife Office of DNR: 772-7981
Tree Survey: St. Paul Parks Office of Forestry: Ed Olson/Tom Carl 488-7291
Rare Features and Endangered and Protected Species: DNR Natural Heritage Program: 296-6157; Sharron Nelson 296-8324

Public Parks, Natural and Recreation Areas: St. Paul Planning District Info Sheet; St. Paul Parks
Waterbodies/ Wetlands: USGS Topological Maps
Mississippi River: MPCA Water Quality Reports and Appendices: Water Years 1990-1991, 1992-1993: MPCA 296-7312
Infrastructure:
Railroad: Union Pacific Railroad (companies themselves)
Airport: Metropolitan Airports Council Holman Field: 224-4306; http://www.faa.gov

1. St. Paul traffic counts: Addie Smith 726-8140
2. Spillage/Environmental Concerns: MAC Environmental Department: Toni Howell 726-5336
3. Noise Complaints: 224-2203

Traffic: St. Paul Public Works: Al Schetka 266-6176 (general contact)

1. Elevated emissions: MPCA Susan Spitzer 296-7723
2. Daily traffic counts: Maps: Kathy Gallager 266-6201

Storm Water Drainage: Rainleader Program 292-6024 (general contact)

1. Impermeable Surfaces; Citizens for a Better Environment info sheet
2. Pipes and outfalls: Public Works Sewer Utility: 10th floor City Hall Annex (25W 4th St.); Ann Weber, 266-6245

Barges:

1. Vessel Counts: US Army Corps of Engineers (lock use): Mark Edlund 290-5324
2. Lbs. of commodities, barge impact, and barge terminals: MN Dept. of Transportation, Ports and Waterways, Dick Lambert 296-1609

Community Facilities: Neighborhood Phone Books
Underground and Aboveground Storage Tanks and Leaking Tanks: MPCA Division of Tanks and Spills: Linda Moon 297-2731
Environmental Concerns: Minnesota Pollution Control Agency 296-6300 (receptionist)
General Overview of Environmental Regulation:

Brown, Jennifer. "Marcy-Holmes Neighborhood Environmental Profile." Center for Urban and Regional Affairs, Minneapolis, MN. 1994.

Doerr, Lisa and Thatcher, Jyneen. "Environmental Inventory: Mississippi Corridor Neighborhood Coalition." 1994.

Harker, Donald F. and Natter, Elizabeth Ungar. Where We Live: A citizen's guide to conducting a community Environmental Inventory. Island Press, Washington D.C. 1995.

Air Pollution: MPCA Air Quality Division: John Morrell 296-7351; Lori Tabor 297-5367
NPDES Permits: MPCA Water Division: Mary DeZurik ph. 296-7724, fax: 297-8683
Sewer Permits: Metropolitan Counsel: Environmental Services Division 222-8423; Bob Pohlman ph 602-4710, fax 602-4730
Ground Water: MN Dept. of Natural Resources (DNR) 296-6157: Sean Hunt, Travis Germinson 296-0512
Hazardous Waste Generators: Ramsey Co. Dept. of Environmental Health, Hazardous Waste Division: Donna Parks 773-4465
Community Right to Know Data:

1. Toxic Chemical Release Inventory: Minnesota Emergency Response Commission 625-3000
2. Chemicals Stored on Site: MN Emergency Response Commission 645-3000; John Chickkala / Steve Tomlyanovich 282-5396

Contaminated Sites: MPCA Office of Computer Services: Linda Moon 297-2731; MPCA Superfund Permanent List of Priorities: Ground Water and Solid Waste Division: LaVonne Anderson 296-7436
Noise: MPCA; Office of Licensing, Inspection, and Environmental Protection: St. Paul Environmental Monitoring & Testing 266-9090, Pete Kischel 266-9133; Complaints: Citizen Service Office, Shari Moore 266-8989
Facilities/Businesses
General Information (i.e., location, phone, purpose, ownership, # of employees, etc.):: University of Minnesota, Wilson Library

1996 Minnesota Manufacturers Register. Manufacturers' News, Inc., Evanston, IL. 1995.

Inc., Evanston, IL. 1995.

1996-1997 St. Paul Metro Business Directory. American Sales Leads, Edina, MN. 1996.

Accidental Releases: MPCA List of Spills of Petroleum Products and/or Hazardous Substances: Linda Moon 297-2731

Pollution Prevention Plans/ Progress Reports: Office of Env. Assistance 296-3417; MN Technical Assistance Program (MNTAP) 627-4646; Minnesota Emergency Response Commission, Steve Tomlyanovich 282-5396

Glossary

Ambient: Surrounding, on all sides (i.e., ambient air quality refers to the quality of all, general air. Ambient temperature is room temperature).

Army Corps of Engineers: Part of the Department of Defense; designs, executes, and manages major civil works projects such as dams and dredging of harbors and waterways. Has authority with EPA to approve or block activities that affect wetlands.

Aspiration: A breathing in, as of dust into the lungs.

Biochemical oxygen demand: An indication of the extent to which water is polluted with sewage or other organic waste. It is a measure of the dissolved oxygen consumed by microorganisms as they break down organic matter, the higher quantity of organic matter, the more oxygen is needed for decomposition.

Biological control materials: Materials which take advantage of a pet's natural vulnerability in order to control it; pest control using introduced predators, parasites, disease organisms, or release of sterile individuals rather than applied pesticides.

Cadmium: Heavy metal that is only found in combination with other elements, especially Zinc, and must be removed when treating wastewater.

Carbon monoxide: Colorless, odorless poisonous gas produced by incomplete burning of hydrocarbons. Major air pollutant.

Chromium: Hard metallic element, electroplated as shiny outerlayer to other elements, relatively resistant to rust and tarnish, must be removed when treating wastewater.

Clean Air Act: Original 1970 federal statute (42 U.S.C.A §7521 et seq.) establishing federal laws relating to air quality. Requires national ambient air quality standards and national emissions standard. Amendment in 1977 requires prevention of deterioration of areas without much pollution. Significantly revised 1990 as Air Quality Act.

Clean Water Act : Original 1972 federal statute (33 U.S.C.A §1251 et seq.) establishing federal laws relating to water quality.

Conductivity: Total Dissolved Solids; salt, extraterrestrial and terrestrial dust and other water soluble materials; lower resistance of current through water with increasing salt levels.

Conventional chemical insecticide: Synthetic compounds used to kill insects, highly toxic to many organisms, persistent, and will bioaccumulate.

Copper: Reddish metallic element, ductile, resistant to erosion, conductive, must be removed when treating wastewater.

Cost-benefit analysis: Estimates and comparisons of short term and long term costs (losses) and benefits (gains) from an economic decision. If estimated benefits exceed costs, decision worthwhile. Now environmental costs are being factored in.

Cyanide: Ion or any number of inorganic salts containing cyanide anion, often refers to poison potassium cyanide; used in manufacture of plastics and mining of gold.

Day-Night level: Measurement unit for aircraft noise. Found in Appendix A of FAR Part 150 (FAA noise regulation).

Decibels: Units for indicating sound intensity, particularly readings of sound pressure level meters. dBA refers to the A scale, a curve derived by modifying decibels to approximate sensitivity to human ear. dBA levels for discomfort close to 100.

Dredge: process of removing sediment that has built up to deepen a waterbody.

Emission: Waste discharged into environment by industrial or other human process.

Emission inventory: Information collected in order to establish emissions standards for a district. Catalogues air pollutants by type and source, listing amounts of each produced daily.

Emission points/pollution points: Point at which pollution is discharged. Air: usually stack or vent; water: line into waterbody or sewer

Endangered: Any species whose population has been reduced to the point that it is at risk of becoming extinct over much or all of its range in the near future.

Environmental Impact Statement (EIS): An analysis required for all major federal actions by the National Environmental Policy Act of 1968 which evaluates the environmental risks of alternative actions.

EPA Form R: Toxic Release Inventory form to be filled out and submitted by facilities that meet TRI reporting requirements.

Fecal Coliform: Water bacteria from mammalian waste products.

Fugitive leaks: Leaks emitted at places other than recognized pollution points.

Grab: Sample of wastewater taken from representative flow.

Hydrocarbons: Air pollutants of carbon and hydrogen; comprise large proportion of auto and other combustion emissions; in sunlight forms toxic, irritating secondary pollutants which contribute to formation of ozone and smog.

Impervious/ Impermeable: Not allowing passage of Fluids

Larvae: Immature (pre-metamorphosis) forms of organisms that undergo metamorphosis.

Leachate: Chemical solution obtained by process of leaching.

Leaching: The movement of dissolved nutrients from surface soil horizons to deep soil horizons by groundwater infiltration.

Lead: Compounds toxic and will accumulate in body and cause poisoning if levels as low as 0.5 mg absorbed daily. Low level or chronic lead poisoning common.

Lower atmospheric ozone formation, or smog: Air pollution resulting when hydrocarbon and nitrogen oxides are exposed to sunlight, causing them to undergo a photochemical reaction to produce more harmful ozone.

Manifest: A shipping paper required of hazardous waste generators which documents all shipments of waste.

Mercury: Heavy, poisonous liquid metallic element. Once in environment, persists and concentrates as it moves up the food chain reaching particularly high levels in fish and shellfish.

Mitigation: commonly refers to the creation of wetlands in exchange for destroying wetlands in a particular area.

National Priority List: Federal Superfund sites that qualify for federal funding and cleanup priority because they pose a risk to human and environmental health; must have a rating of at least 28.5 on a 1 to 100 scale to be considered for list.

Natural communities: functional units of the natural landscape. They are classified and described by considering vegetation, hydrology, landform, soils, and natural disturbance regimes.

Nickel: Hard metal used as a catalyst by the chemical industry; must be removed when treating wastewater.

Nitrogen dioxide: Rust colored gas; major air pollutant, direct product of combustion, component of photochemical smog.

Nitrogen oxides: Compounds formed by oxidation of nitrogen; major air pollutants; believed to contribute to the depletion of the ozone layer.

Non-contact cooling water : Water used only to cool industrial process then released. No chemicals added.

Nonpoint source pollution: Pollution-producing entities that are not tied to a specific origin such as an individual smokestack.

Nutrients: Anything that provides nourishment, especially a mineral element for food compound required for normal functioning of plants and animals. Nutrient loading causes cultural eutrophication in water bodies, which is a rapid increase in plant growth.

Opacity: Degree to which substances block the passage of light.

Ozone: Compound formed when oxygen gas is exposed to ultraviolet radiation; major air pollutant contributing to smog.

Parameters: A variable that characterizes or determines behavior of a system.

Particulate matter: Category of air pollutants that refers to small, solid particles or liquid droplets suspended in air. Examples: soot, fumes, dust, pollen and spores, smoke, spray, fog.

pH: A measure of the relative concentration of hydrogen ions in a solution; Above 7 considered basic, below 7 acidic.

Point source pollution: Stationary, identifiable pollution-generating facilities.

Rare features: Not commonly found, unusual, and occurring in only a few cases.

Remedial activities: Activities intended to remedy a situation (i.e., clean up a contaminated site).

Sensitive populations: People sensitive to environmental toxins, generally anyone over the age of 65 or under the age of 5, or anyone with serious or chronic health problems.

Silver: Metallic element known as a conductor for heat and electricity; must be removed when treating wastewater.

Stack: Smokestack, point source emissions point for air pollution.

State Ranks: assigned to natural community types in the state to reflect their known extent and condition. Rank ranges from 1, indicating the greatest need for conservation, to 5, secure under present conditions. Ranks do not represent a legal protection status, they are used to set priorities for research, inventory and Conservation planning.

Sulfur dioxide: Major air pollutant, corrosive, harmful to plants and animals, especially trees, dissolves in water to form acid rain.

Superfund: Common name for federal Comprehensive Environmental Response, Compensation and Liability Act. Superfund sites are on the National List of Priorities.

Temperature inversions: Reversal of normal atmospheric temperature gradient, a layer of cooler air gets trapped by warmer air which interrupts air circulation and can lead to increased levels of air pollution.

Threatened: Populations declining sharply in parts of their range which may be in danger of becoming extinct in specific areas as a result of direct or indirect actions by humans; between rare and endangered classifications.

Threshold levels: Minimum level of a value (i.e., mosquito population) required to cause a particular response in a system (i.e., spraying).

Toxicity: Potency of a poisonous substance, degree to which it is harmful to organisms.

Toxicology: Study of toxins.

Turbidity: Total suspended solids, a major contributor is sediment.

Volatile Organic Compounds: Hydrocarbon compounds that have low boiling points and evaporate readily, i.e., propane, benzene, and other components of gasoline.

Watershed: Total area of land surface from which an aquifer or river system collects its water.

Wetlands: Areas of land covered with water at least part of the year; have characteristic soils and have 1 of a number of distinct vegetation types: bogs, swamps, marshes, salt marshes. Important functions include purifying water that recharges aquifers, providing food and habitat and stop-over sties for migrating waterfowl.

Zinc: Metal with many commercial uses, must be removed when treating wastewater.

Zoning: Legal mechanism, usually at the municipality level, for delineating districts for the purpose of regulating or controlling or in some way limiting use of private property.

List of Acronyms

APO: Administrative Penalty Order

CAS: Chemical Abstract Service

dBA: Decibel (A-scale)

DNL: Day-Night Level

DNR: Department of Natural Resources

EHS: Extremely Hazardous Substance

EPA: Environmental Protection Agency

EPCRA: Emergency Planning and Community Right to Know Act

ERC: Emergency Response Commission

LOW: Letter of Warning

MAC: Metropolitan Airports Commission

MMCD: Metropolitan Mosquito Control District

MnTAP: Minnesota Technical Assistance Program

MPCA: Minnesota Pollution Control Agency

MSDS: Material Data Safety Sheet

MWCC: Metropolitan Waste Control Council

NOV: Notice of Violation

NPDES: National Pollution Discharge Elimination System

NPL: National Priority List (National Superfund list)

OSHA: Occupational Safety and Health Act

PLP: Permanent List of Priorities (MN Superfund list)

PM: Particulate Matter

PM-10: Particulate Matter less than 10 microns

RCRA: Resource Conservation and Recovery Act

SARA: Superfund Amendments and Reauthorization Act

SIC: Standard Industrial Classification

SPRP: Scientific Peer Review Panel

TIP: Toxicity Index Profile

TRI: Toxic Report Inventory

VIC: Voluntary Investigation and Cleanup Program

VOC: Volatile Organic Compound

VPIC: Voluntary Petroleum Investigation and Cleanup Program

Maps

Map 1: United States Geological Survey Map
Map 2: 1884 Plat Map of St. Paul (West Side Section)
Map 3: Original Vegetation of Anoka and Ramsey Counties (West Side Section)
Map 4: Parks, Waterbodies, Natural Communities
Map 5: Noise Contours for St. Paul Downtown Airport 1995